California Regional Water Quality Control Board
Santa Ana Region
3737 Main Street, Suite 500
Riverside, CA 92501-3348

September 6, 2002

STAFF REPORT

ITEM:

SUBJECT:

Waste Discharge Requirements for the Western Riverside County Regional Wastewater Authority Regional Wastewater Treatment Plant, Riverside County, Order No. R8-2002-0024, NPDES No. CA8000316.

DISCUSSION:

See Attached Fact Sheet

RECOMMENDATION:

Adopt Order No. R8-2002-0024, NPDES No. CA8000316, as presented.

COMMENTS SOLICITED:

Comments were solicited from the following persons and agencies:

U.S. Environmental Protection Agency, Permits Issuance Section (WTR-5) - Terry Oda
U.S. Army District, Los Angeles, Corps of Engineers, Regulatory Branch
U.S. Fish and Wildlife Service - Carlsbad
State Water Resources Control Board, Office of the Chief Counsel - Jorge Leon
State Water Resources Control Board, Division of Water Quality - James Maughan
State Water Resources Control Board, Division of Clean Water Programs - Diana Robles
State Department of Health Services, Carpenteria - Jeff Stone
State Department of Health Services, San Diego - Steve Williams
State Department of Water Resources - Glendale
State Department of Fish and Game - Long Beach
Orange County Water District - Nira Yamachika
Riverside County Flood Control and Water Conservation District - Jason Christie
Riverside County Environmental Health Services - Joanne Ullman
Riverside County Environmental Health Services - Sam Martinez
City of Riverside Regional Water Quality Control Plant
City of Norco - City Manager
Home Gardens Sanitary District - Manager
Jurupa Community Services District - Tom O'Neill
Western Municipal Water District - Don Harriger
Santa Ana Watershed Project Authority - Joseph Grindstaff

Santa Ana River Dischargers Association - Roger Turner
Kennedy/Jenks Consultants - Matt A. Tibbetts
Western Riverside County Regional Wastewater Authority - Norman Thomas
Orange County Coastkeeper
Lawyers for Clean Water

California Regional Water Quality Control Board
Santa Ana Region
3737 Main Street, Suite 500
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FACT SHEET

September 6, 2002

The attached pages contain information concerning an application for waste discharge requirements and a National Pollutant Discharge Elimination System (NPDES) permit.

A. FACILIITY DESCRIPTION

The Western Riverside County Regional Wastewater Authority (hereinafter WRCRWA or discharger) owns and operates the Western Riverside County Regional Wastewater Treatment Plant (WRCRWTP). The WRCRWTP is currently regulated under Waste Discharge Requirements Order No. 97-02, NPDES No. CA8000316 issued on June 6, 1997 and amended by Order No. 00-77 on October 6, 2000. Order No. 97-02 expired on June 1, 2002, and was administratively extended until it is replaced by revised waste discharge requirements.

The WRCRWA is a joint powers authority formed to plan, construct, and operate a cost effective regional system for tertiary treatment and disposal of sewage from participating agencies. These agencies are as follows:

1. Santa Ana Watershed Project Authority (SAWPA)
2. Jurupa Community Services District (JCSD)
3. Western Municipal Water District (WMWD)
4. Home Gardens Sanitary District (HGSD)
5. City of Norco

WMWD, HGSD, and Norco are currently discharging wastewater into the WRCRWTP. In the past, the WRCRWTP accepted and treated wastewater from a portion of the City of Corona in accordance with an agreement between the City of Corona and WMWD. The diversion of wastewater flows from the City of Corona to the WRCRWTP has been terminated and is not expected to resume.

The WRCRWTP is located at 14634 River Road in southwestern Riverside County. Treated wastewater is discharged to Reach 3 of the Santa Ana River (SAR) at latitude 33°55'11", and longitude 117°36'25". The facility location map is shown on Attachment A-1.

In 1998, the WRCRWA completed construction of the WRCRWTP. The WRCRWTP provides tertiary wastewater treatment for areas within western Riverside County. Current design capacity is 8.0 million gallons per day (mgd) with an ultimate capacity of 32 mgd. Currently, the WRCRWTP treats approximately 2.7 mgd of wastewater. Attachment B-1 and B-2 present process flow schematics for the liquid and solids treatment facilities at WRCRWTP.

The WRCRWTP treatment process consists of the following:

1. Primary treatment: a 13.44-mgd capacity headworks, mechanical bar screen, non-aerated grit chamber, and a Parshall flume.

2. Secondary treatment: an 8-mgd capacity oxidation ditch with anoxic zone, and two circular secondary clarifiers;
3. A 1.44-million gallon capacity flow equalization tank;
4. Tertiary treatment: 8 Dynasand filters with cationic polymer and liquid alum addition, a medium-pressure ultraviolet irradiation system for disinfection; and a gravity cascade aerator that provides post aeration of the disinfected effluent.
5. The solids handling facilities consist of the following:
    a. Two aerobic digesters ;
    b. Three Centrifuges
    c. Chemical feed system.
    d. Sludge dewatering. Dewatered sludge is hauled away for offsite disposal.

B. WASTEWATER CHARACTERISTICS

1. Wastewater Quantity

The influent to the WRCRWTP consists primarily of wastewater flows from HGSD, WMWD, and from the City of Norco. The following briefly describes each entity's current waste flows to WRCRWTP and the destination of the remaining wastes.

a. WMWD provides sewer service to unincorporated areas within western Riverside County and currently transports approximately 0.6 mgd of untreated wastewater to the WRCRWTP.
b. HGSD currently transports approximately 0.4 mgd of untreated wastewater to the WRCRWTP.
c. Norco wastewater flows of approximately 1.7 mgd are diverted to the WRCRWTP.
d. JCSD does not currently discharge wastewater to the WRCRWTP.

The following table summarizes the current flow contribution and projected wastewater flows into the WRCRWTP from each member agency.

Table I

Member Agency	Flow (mgd)	
	Current	Projected
Jurupa Community Services District	0.0	0.25
Western Municipal Water District	0.6	4.93
Home Gardens Sanitary District	0.4	0.62
City of Norco	1.7	2.2
Total	2.7	8.00

2. Wastewater Quality

The influent wastewater quality is consistent with flows from a service area that is primarily residential and commercial development with a small industrial contribution.

C. WATER SUPPLY SOURCE AND QUALITY

The WRCRWTP provides service to agencies that use various water supply sources with varying mineral constituent concentrations. Several rely on State Water Project water from Metropolitan Water District (MWD), others rely on groundwater from various local groundwater basins, and others utilize a combination of both surface water and groundwater sources.

Table II shows the water supply quality in the service area.

Table II -Source Water Constituent Concentrations	
Constituents	Flow Weighted Average, mg/l
Boron	1.2
Chloride	97
Nitrate, as NO_3	10.4
pH	7.3
Specific conductance	864
Sodium	76
TDS	427
Total Hardness	167

D. REGULATORY BASIS FOR WASTE DISCHARGE REQUIREMENTS

This Order includes requirements that implement the Water Quality Control Plan (Basin Plan), which was adopted by the Regional Board on March 11, 1994. The Basin Plan was approved by the Office of Administrative Law and became effective on January 24, 1995. This Plan specifies water quality objectives and beneficial uses for the waters of the Santa Ana Region.

The WRCRWTP discharges tertiary treated wastewater to Santa Ana River, Reach 3, one mile downstream of River Road. The beneficial uses of the Santa Ana River, Reach 3 include: agricultural supply, groundwater recharge, water contact recreation, non-contact water recreation, warm freshwater habitat, wildlife habitat, and rare, threatened or endangered species. The discharge also affects the downstream reaches of the Santa Ana River. The WRCRWTP site overlies the Chino III Groundwater Subbasin, the beneficial uses of which include municipal and domestic supply, agricultural supply, industrial service supply, and, industrial process supply.

Under dry weather conditions, most of the flow in the Santa Ana River, Reach 3, is comprised of effluent discharges from municipal wastewater treatment facilities, including the discharge from this facility, and very little natural flow exists.

Article 3, Section 60305 of Title 22, Division 4, Chapter 3, "Water Recycling Criteria" of the California Code of Regulations specifies that recycled water used as a source supply for non-restricted recreational impoundments shall be disinfected tertiary recycled water that has been subjected to conventional treatment. Section 60305 also provides that disinfected tertiary recycled water that has not received conventional treatment may be used for nonrestricted recreational impoundments provided that the recycled water is monitored for the presence of pathogenic organisms in accordance with certain conditions. The degree of treatment specified represents an approximately 5-log reduction in the virus content of the water. The State Department of Health Services (DHS) has determined that this degree of virus removal is necessary to protect the health of people using these impoundments for water contact recreation. The DHS has developed wastewater disinfection guidelines ("Wastewater Disinfection for Health Protection", DHS, Sanitary Engineering Branch, February 1987) for discharges of wastewater to surface waters where water contact recreation (REC-1) is a beneficial use. The disinfection guidelines recommend the same treatment requirements for wastewater discharges to REC-1 waters as those stipulated in Title 22 for supply of recycled water to non-restricted recreational impoundments, since the public health risks under both scenarios are analogous. The disinfection guidelines are based on sound science and are widely used as guidance to assure public health and beneficial use protection.

The Santa Ana River is not a “non-restricted recreational impoundment,” nor is “disinfected tertiary recycled water” (as defined in the Water Recycling Criteria) being used as a supply source for the River. However, except during major storms, most of the flow in the River is composed of treated municipal wastewater discharges. The River is used for water contact recreation and, accordingly, is designated REC-1 (water contact beneficial use). People recreating in the River face an exposure similar to those coming in contact with recycled water in an impoundment. Therefore, to protect the water contact recreation beneficial use and to prevent nuisance and health risk, it is necessary and appropriate to require the same degree of treatment for wastewater discharges to the River as would be required for the use of recycled water in a non-restricted recreational impoundment. Thus, this Order specifies requirements based on tertiary or equivalent treatment.

The discharger proposes to discharge secondary treated and disinfected wastewater to Reach 3 of Santa Ana River when 20:1 dilution of the wastewater can be provided by the natural flow of the River at the point of discharge. The DHS has determined that public health and water contact recreation beneficial uses will be protected provided that at least 20:1 dilution of secondary treated and disinfected wastewater by natural receiving waters is achieved (Wastewater Disinfection for Health Protection”, DHS, Sanitary Engineering Branch, February 1987). Based on best professional judgement, the proposed Order implements these public health protection guidelines.

The proposed Order specifies numeric and narrative limits for the control of toxic substances. These limits are based on the following:

1. 1995 Basin Plan.
2. Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California adopted on March 2, 2000 by the State Water Resources Control Board (hereinafter, "Policy").
3. Code of Federal Regulations (40 CFR Parts 122-124, 129, 131, 136, 141-142 and 503)
4. U.S. EPA, Quality Criteria for Water (1986).
5. National Toxics Rule (Federal Register, vol. 57, No. 256, Dec. 22, 1992, 60848-60922).
6. Technical Support Document for Water Quality-based Toxics Control (EPA/505/2-90-001, March 1991).
7. Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California, promulgated in May 18, 2000 by the U.S. EPA.
8. Santa Ana River Use-Attainability Analysis, Volume 10, Calculation of Total-to-Dissolved Metal Ratios to Translate Site-Specific Water Quality Objectives into NPDES Effluent Limits", Risk Sciences (May, 1994).
9. Water Quality Criterion for the Protection of Human Health: Methylmercury – EPA-823-R-01-001, January 2001.

The State Water Resources Control Board adopted the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (Policy) on March 2, 2000. This Policy establishes implementation provisions for priority pollutant criteria promulgated by the U.S. Environmental Protection Agency (U.S. EPA) through the National Toxics Rule (NTR) (promulgated on December 22, 1992 and amended on May 4, 1995) and through the California Toxics Rule (CTR) (promulgated on May 18, 2000).

This Order implements federal regulations specified in 40 CFR 122, 123, 124, 125, and 129, which pertain to all publicly-owned treatment works (POTW) with average design flows exceeding 1 mgd.

WRCRWTP is designed to treat 8 mgd of wastewater. Therefore, this Order include requirements for the implementation of an effective pretreatment program pursuant to Section 307 of the Federal Clean Water Act Parts 35 and 403 of Title 40, Code of Federal Regulations (40 CFR 35 and 40 CFR 403) and Section 2233, Title 23, California Code of Regulations. An effective pretreatment program is required for those publicly owned treatment works that have a design capacity at or greater than 5 million gallons per day, or are receiving flows and pollutants from industrial users that pass through or interfere with the operation of the POTW or are otherwise subject to pretreatment standards.

On April 17, 1997, the State Board adopted the General Industrial Storm Water Permit, Order No. 97-03-DWQ, NPDES No. CAS000001. This General Permit implements the Final Regulations (40 CFR 122, 123, and 124) for storm water runoff published on November 16, 1990 by EPA in compliance with Section 402(p) of the Clean Water Act (CWA). WRCRWA confirmed that the first part of stormwater remains onsite and is contained, then is channeled to the treatment plant headworks for treatment prior to discharge. More stormwater then runoffs

and discharges to surface waters. Order No. R8-2002-0024 includes pertinent Provisions of the General Industrial Storm Water Permit.

E. PROPOSED EFFLUENT LIMITATIONS

The limitations in this Order are intended to control pollutants in the waste discharge, maintain water quality, and protect the beneficial uses of the affected receiving waters. Revisions to water quality objectives or to beneficial uses designated in the Basin Plan may occur in the course of periodic review and update of the Plan. These waste discharge requirements will be re-evaluated and may be revised to accommodate any of these changes.

In determining compliance with the effluent limitations in this Order, no mixing zone allowance is provided. No mixing zone allowance is proposed since there is little natural receiving water at the point of discharge.

Biochemical Oxygen Demand (BOD) and Suspended Solids

The proposed Biological Oxygen Demand (BOD) and suspended solids limits are based on values that are achievable with tertiary treatment. These limits are intended to ensure that only adequately oxidized wastewater is discharged.

Total Dissolved Solids (TDS)/Inorganic Minerals

The proposed TDS limit for the discharge to Reach 3 of Santa Ana River is based on the Basin Plan wasteload allocation for TDS discharges to the Santa Ana River system. To implement the Basin Plan, the proposed Order specifies a TDS limit of 625 milligrams per liter (mg/l), and a TDS limit based on the quality of water supplied to the service area plus a reasonable use increment[1]. The more restrictive of the two TDS limits applies to the discharge. The mineral limits for sodium, sulfate, chloride and total hardness are based on the water quality objectives for the Santa Ana River, Reach 3.

The Basin Plan recognizes that strict compliance with the TDS limits may be difficult to achieve. The Basin Plan describes the regulatory approach the Regional Board uses to address such situations. The Board incorporates offset provisions in waste discharge requirements whereby dischargers can participate in approved programs to offset TDS discharges in excess of specified TDS limits, provided that the discharger makes all reasonable efforts to improve the TDS quality of the water supply (and, thereby, the wastewater). The Board has indicated that participation in the watershed-wide study of TDS and total inorganic nitrogen (TIN) which is being conducted under the auspices of a number of dischargers and other interested parties, with participation by the Regional Board and coordination by the Santa Ana Watershed Project Authority (SAWPA), will constitute an acceptable TDS offset. This Order provides that participation in the TIN/TDS study will constitute an acceptable salt offset program.

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1 *See Mineral Increments on Page 5-15 of 1995 Basin Plan.*

The Authority may not be able to comply with the 625 mg/l TDS limit for discharges to the River. The Authority is currently implementing the following to offset TDS discharges in excess of the limits specified in waste discharge requirements for discharges from the WRCRWTP:

a. Participation in the watershed-wide study of TDS and total inorganic nitrogen (TIN); and,

b. WRCRWA assures that sufficient high quality product water from the Arlington Basin Desalter[2] continues to be discharged into the Santa Ana River to offset the impacts of the poorer quality discharge from their wastewater treatment plant. The result would be that the blended water would meet the effluent limitations specified in the proposed Order.

Total dissolved solids is essentially the summation of the concentrations of sodium, sulfate, chloride and total hardness (carbonates) in water. The water quality objectives for these individual mineral constituents are commensurate with the TDS objective for a groundwater subbasin. An exceedance of the TDS objective would, consequently, result in an exceedance of one or more of the objectives for these components of TDS. Therefore, although the offset provision mentioned above specifically addresses only TDS, it is reasonable that this provision should also apply to those individual mineral components of TDS.

The TIN/TDS study has led to revised findings regarding TDS assimilative capacity and recommendations for changes to the TDS wasteload allocation and other TDS management strategies. These recommendations are expected to be reflected in a Basin Plan amendment to be considered by the Regional Board in early 2003. This Order will be reopened to revise TDS limits if and as necessary based on approved Basin Plan changes.

Total Inorganic Nitrogen (Nitrate, Nitrite, Ammonia)

High concentrations of nitrates in domestic water can be toxic to human life. To protect human health, the concentrations of nitrates in lakes, streams, and groundwater, which are sources of drinking water must not exceed 45 mg/l (as NO_3) or 10 mg/l (as N) as a result of controllable water quality factors.

On November 15, 1991, the Regional Board adopted a revised wasteload allocation for total inorganic nitrogen in Publicly Owned Treatment Works (POTW) discharges to the Santa Ana River and its tributaries and to groundwater in the Upper Santa Ana River Basin. In accordance with the revised wasteload allocation, the proposed order specifies a TIN limit of 10.0 mg/l for all flows. The TIN/TDS study has resulted in recommendations for a revised TIN wasteload

2 *The Santa Ana Watershed Project Authority (SAWPA) and Western Municipal Water District (WMWD) operate the Arlington Basin Desalter. High TDS groundwater pumped from the Arlington Groundwater Subbasin is treated in the desalter. Brines extracted from the groundwater are discharged to the Santa Ana Regional Interceptor, while the product water will ultimately be used for water supply in the local area. Currently, none of the local water supply agencies are purchasing the product water. Nevertheless, SAWPA and WMWD are currently operating the Arlington Basin Desalter as a groundwater cleanup project. The product water from the desalter is discharged to the Santa Ana River in a location near the discharge point for the effluent from the WRCRWA wastewater treatment plant.*

allocation, which the Regional Board is expected to consider as a Basin Plan amendment in early 2003. This Order will be reopened to revise the TIN limit, if and as necessary, based on a revised wasteload allocation.

Un-ionized ammonia exists in equilibrium with ammonium $(NH_4)^+$ and hydroxide (OH^-) ions. The concentrations of ammonium and hydroxide ions change with temperature, pH and salinity of the water. Total ammonia nitrogen wasteload allocations are specified in the Basin Plan in order to meet the Santa Ana River site-specific un-ionized ammonia objective. In accordance with the Basin Plan, this Order specifies an average monthly effluent limitation of 5 mg/l for total ammonia-nitrogen.

Trace constituent limitations

The U.S. EPA has identified 126 priority pollutants, including metals and organic chemicals, and has promulgated water quality objectives for many of these substances in the California Toxics Rule and National Toxics Rule. The State Board's Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California (Policy) specifies the procedures that are to be used in implementing these objectives in waste discharge requirements. Numeric effluent limitations must be specified for those priority pollutants that are determined to have the reasonable potential to cause or contribute to a violation of the applicable objectives. To determine reasonable potential, the maximum effluent concentrations are compared to the criteria values specified in the California Toxics Rule. If the detected concentrations are less than the objectives, it is concluded that the effluent poses no reasonable potential to exceed water quality objectives for that constituent, and numeric effluent limitations for that constituent are not required. However, periodic monitoring for such constituents is required. In situations where the criteria value and all available effluent and receiving water data are below detection limits, no reasonable potential determination could be made and again, effluent limits are not required. However, the discharger is also required to monitor these pollutants on a regular basis.

To determine reasonable potential for pollutants to exceed water quality objectives, Board staff used the procedures outlined in the State Board's Policy. Influent and effluent monitoring data for the WRCRWTP were used in this analysis. The maximum effluent concentrations for individual constituents that were detected in the effluent were compared to the criteria values specified in the California Toxics Rule (CTR). When monitoring data show that individual constituents were not detected, the lowest detection level (DL) is used to make such comparisons. When the detected concentrations or the lowest DL were less than the criteria, it was concluded that the effluent posed no reasonable potential to exceed water quality objectives for that constituent. For all priority pollutants for which there was no demonstrated reasonable potential to cause a water quality objective to be exceeded, no numeric limitations are specified in this Order. In situations where the criteria value and all available effluent data were below detection levels and receiving water data are unavailable, staff was unable to determine if there was a reasonable potential to cause a water quality objective to be exceeded. Therefore, effluent limits for those constituents were also not included in this Order. However, the discharger is required to monitor for these pollutants on a quarterly basis at detection levels that are specified in the Order. If warranted by the results of this monitoring, this Order will be reopened to incorporate appropriate effluent limits.

Using WRCRWTP data, the reasonable potential analysis showed that cadmium, copper, lead, cyanide, mercury and selenium have the reasonable potential to exceed water quality objectives. Following the CTR and the Policy procedures, effluent discharge limitations were developed for all of these six constituents. When developing the limits for copper, cadmium, and lead, hardness and total- to- dissolved factors are used. Statistical procedures as specified in the Policy are used in calculating effluent limits. Using the CTR and the Policy, the calculated effluent limits for cadmium, cyanide and selenium are higher (less stringent) than the effluent limits for these constituents that were specified in Order No. 97-2. The limits in Order No. 97-2 were based, in part, on the National Toxics Rule and US EPA Technical Support Document, which have been supplanted by the CTR and the Policy. The antibacksliding provisions of the Clean Water Act prohibit the relaxation of effluent limits except under specified conditions. To date, these conditions have not been satisfied. Accordingly, this Order specifies the same limits for cadmium, cyanide and selenium as those included in Order No. 97-2.

Toxicity Limitations

This Order requires the discharger to conduct chronic[3] toxicity testing of the effluent on a monthly basis. The Order also requires the discharger to conduct an Initial Investigation Toxicity Reduction Evaluation (IITRE[4]) program when either the two-month median of toxicity test results exceeds 1 TUc or any single test exceeds 1.7 TUc for survival endpoint. Based on the results of this investigation program and at the discretion of the Executive Officer, a more rigorous Toxicity Reduction Evaluation/Toxicity Identification Evaluation (TRE/TIE) may be required. A re-opener provision is included in the Order to incorporate a chronic toxicity effluent limitation if warranted by the toxicity test results.

Compliance

Many of the objectives specified in the CTR, and the effluent limits that implement them, are at extremely low concentrations. In several cases, these concentrations are below current laboratory detection values. As such, it is necessary to require laboratory analyses to be performed to the lowest possible concentrations. The Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (Policy) includes a list of priority pollutants with their respective Minimum Levels (ML)[5] on which "reported Minimum Levels" (i.e., quantitation values for the sample) shall be based. The Policy recognizes that the "reported ML" may be orders of magnitude different than the listed MLs depending on the amount of dilution/concentration required for sample preparation, and the

3 *The chronic test method for the water flea "Ceriodaphnia dubia" also measures acute toxicity.*

4 *An IITRE is the initial stage of investigation conducted prior to implementing a complete toxicity reduction evaluation (TRE) study. A TRE is a stepwise process for identifying the agent(s) and/or source(s) of toxicity in a given effluent.*

5 *Minimum Level is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.*

amount of dilution necessary to address matrix interference. Unfortunately, the policy lacks guidance for the development of appropriate "reported MLs".

The Regional Board has required discharges to meet practical quantitation levels (PQLs[6]). The PQLs for wastewater were developed based on the following:

1. A survey of laboratories in the Southern California area and a review of method detection levels (MDLs) in accordance with 40 CFR 136 for a wastewater matrix reported by local laboratories;

2. The consensus PQLs determined during the meeting of major Southern California laboratories with the Regional Board staff on January 28, 1992. The consensus PQLs are believed to represent the lowest quantitation levels that can be achieved by most laboratories in Southern California based on proven laboratory performance and the reasonable application of best available analytical technology for most toxic substances;

3. The report "A Study To Determine The Practical Quantitation Levels (PQL) For Selected Water Chemistry Parameters Analyzed by Commercial Laboratories Operating In The Santa Ana River Watershed" (Risk Sciences, 1993). This report recommended PQLs for cadmium, copper, lead, selenium, and silver that better represented the actual PQLs attained by analytical laboratories performing analyses for these substances in a recycled water matrix.

Order No. R8-2002-0024 sets the PQLs listed in Attachment "A" of the monitoring and reporting program as the "reported MLs" for those constituents listed, until March 1, 2003. For all other constituents not listed in the PQL list, the lowest detection level achieved by the discharger shall be used with prior approval by the Executive Officer. Order No. R8-2002-0024 requires that by March 1, 2003, the discharger shall meet the quantitation levels specified in Attachment "B" of the Monitoring and Reporting Program No. R8-2002-0024 for those priority pollutants with effluent limitations in the Order.

In cases where the discharger believes that the sample matrix justifies a different "reported ML", the discharger is required to demonstrate to the satisfaction of the Regional Board's Executive Officer the appropriateness of the alternative "reported ML" for that sample matrix prior to March 1, 2003.

All analytical data are required to be submitted with the corresponding MDLs and MLs. Sample results shall be reported as "DNQ" (Detected, but Not Quantified) if the results are less than the reported ML, but greater than the MDL. Sample results shall be reported as "ND" (Not Detected) if the results are less than the MDL.

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6 *PQL is the lowest concentration of a substance that can be determined within ± 20 percent of the true concentration by 75 percent of the analytical laboratories tested in a performance evaluation study. Alternatively, if performance data are not available, the PQL is the method detection limit (MDL) x 5 for carcinogens and MDL x 10 for noncarcinogens.*

Dischargers shall be deemed out of compliance with an effluent concentration limit if the concentration of the effluent sample is greater than the effluent limit and greater than or equal to the "reported ML." Dischargers shall not be deemed out of compliance for any sample result reported as DNQ or ND. However, the discharger is required to conduct a Pollutant Minimization Program, as described in the Policy, if there is an indication that a constituent is present in the effluent above an effluent limitation and either:

a. A sample result is reported as DNQ and the effluent limitation is less than the "reported ML", or
b. A sample result is reported as ND and the effluent limitation is less than the MDL.

F. ANTIDEGRADATION ANALYSIS:

The Regional Board has considered antidegradation pursuant to 40 CFR 131.12 and State Board Resolution No. 68-16. The water quality of the receiving waters is not expected to degrade as a result of this discharge. Neither the constituent concentrations of the discharge nor the mass loading of pollutants associated with the discharge will adversely impact water quality or affect the beneficial uses of the receiving waters. Therefore, these waste discharge requirements are consistent with federal and state antidegradation policies.

G. WRITTEN COMMENTS:

Interested persons are invited to submit written comments on the proposed discharge limits and the Fact Sheet. Comments should be submitted by August 19, 2002, either in person or by mail to:

Jane Qiu
California Regional Water Quality Control Board
Santa Ana Region
3737 Main Street, Suite 500
Riverside, CA 92501-3348

H. INFORMATION AND COPYING:

Persons wishing further information may write to the above address or call Jane Qiu of the Regional Board at (909) 320-2008. Copies of the application, proposed waste discharge requirements, Fact Sheet, and other documents (other than those which the Executive Officer maintains as confidential) are available at the Regional Board office for inspection and copying between the hours of 9:00 a.m. and 3:00 p.m., Monday through Friday (excluding holidays).

I. REGISTER OF INTERESTED PERSONS:

Any person interested in a particular application or group of applications may leave his name, address, and phone number as part of the file for an application.

J. PUBLIC HEARING:

The Regional Board will hold a public hearing regarding the proposed waste discharge requirements as follows:

DATE:	September 6, 2002
TIME:	9:00 a.m.
PLACE:	City Council Chambers of Loma Linda 25541 Barton Road Loma Linda

Location Map

Schematic of Treatment Plant Wastewater Flow

Schematic of Treatment Plant Solids Handling Process

California Regional Water Quality Control Board
Santa Ana Region

ORDER NO. R8-2002-0024
NPDES NO. CA8000316

Waste Discharge Requirements

for the

Western Riverside County Regional Wastewater Authority
Western Riverside County Regional Wastewater Treatment Plant
Riverside County

California Regional Water Quality Control Board
Santa Ana Region

ORDER No. R8-2002-0024
NPDES NO. CA8000316

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California Regional Water Quality Control Board
Santa Ana Region

ORDER NO. R8-2002-0024
NPDES NO. CA8000316

Waste Discharge Requirements

For

Western Riverside County Regional Wastewater Authority
Western Riverside County Regional Wastewater Treatment Plant
Riverside County

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter Regional Board), finds that:

1. Western Riverside County Regional Wastewater Authority (hereinafter WRCRWA or discharger) owns and operates the Western Riverside County Regional Wastewater Treatment Plant (WRCRWTP). The WRCRWTP is currently regulated under Waste Discharge Requirements Order No. 97-02, NPDES No. CA8000316 issued on June 6, 1997 and amended by Order No. 00-77 on October 6, 2000, respectively. Order No. 97-02 expired on June 1, 2002 and was administratively extended until it is replaced by revised waste discharge requirements.

2. WRCRWA is a joint powers agency formed to plan, construct and operate a cost effective regional tertiary wastewater treatment system and disposal facilities to process raw sewage from the participating agencies. These agencies are as follows:

   a. Santa Ana Watershed Project Authority (SAWPA)
   b. Jurupa Community Services District (JCSD)
   c. Western Municipal Water District (WMWD)
   d. Home Gardens Sanitary District (HGSD)
   e. City of Norco

3. On March 8, 2002, the discharger submitted a complete application for renewal of a permit to discharge tertiary treated wastewater from the WRCRWTP under the National Pollutant Discharge Elimination System (NPDES).

4. The WRCRWTP is located in a portion of Sections 9 and 10, T3S, R7W, SBB&M., in Riverside County. The treatment plant is situated north of the Santa Ana River about 3 miles northeast of Prado Dam, west of the intersection of Archibald Avenue and River Road, west of the City of Norco, and northwest of the City of Corona.

5. The WRCRWTP provides tertiary treatment of domestic, commercial and industrial wastes from member agencies' sewer service areas: WMWD, HGSD, and Norco. Currently, no wastewater flow from JCSD is discharged to this facility.

6. The current design capacity is 8.0 million gallons per day (mgd) with an ultimate capacity of 32 mgd at build out. Currently, the WRCRWTP treats approximately 2.7 mgd of wastewater. The following table summarizes the current flow contribution and projected wastewater flows into the WRCRWTP from each member agency.

Table I

Member Agency	Flow (mgd)	
	Current	Projected
Jurupa Community Sanitary District	0.0	0.25
Western Municipal Water District	0.6	4.93
Home Gardens Sanitary District	0.4	0.62
City of Norco	1.7	2.2
Total	2.7	8.00

7. The WRCRWTP treatment process consists of the following:

   a. Primary treatment: a 13.44-mgd capacity headworks, mechanical bar screen, non-aerated grit chamber, and a Parshall flume.

   b. Secondary biological treatment: an 8-mgd capacity oxidation ditch with anoxic zone, two circular secondary clarifiers;

   c. A 1.44-million gallons capacity flow equalization tank ;

   d. Tertiary treatment: 8 Dynasand filters with cationic polymer and liquid alum addition, a medium-pressure ultraviolet irradiation disinfection system ; and

   e. A gravity cascade aerator that provides post aeration of the disinfected effluent.

   f. The solids handling facility consists of the following:

      1) Two aerobic digesters,

      2) Three Centrifuges,

      3) chemical feed system,

      4) Dewatered sludge is hauled away to approved disposal site.

8. Tertiary treated wastewater from the facility is discharged to Reach 3 of the Santa Ana River. The discharge point is located at latitude 33°55'11" and longitude 117°36'25".

9. A revised Water Quality Control Plan (Basin Plan) became effective on January 24, 1995. The Basin Plan contains beneficial uses and water quality objectives for waters in the Santa Ana Region.

10. The discharge affects the Santa Ana River, Reach 3, as well as the downstream reaches of the River. The beneficial uses of the Santa Ana River, Reach 3 include:

    a. Agricultural supply,
    b. Groundwater recharge,
    c. Water contact recreation,
    d. Non-contact water recreation,
    e. Warm freshwater habitat,
    f. Wildlife habitat, and
    g. Rare, threatened or endangered species

11. The discharge also affects groundwater subbasins underlying the Santa Ana River, including the Chino III Groundwater Subbasin, the beneficial uses of which include:

    a. Municipal and domestic supply,
    b. Agricultural supply,
    c. Industrial process supply, and
    d. Industrial service supply

12. The requirements contained in this order are necessary to implement the Basin Plan.

13. The limits contained in this Order for average concentrations of dissolved solids, sodium, chloride, sulfate, and total hardness are those that the discharger may reasonably be expected to achieve using reasonable methods such as, but not limited to, a source control program and the control of water supply sources.

14. It is necessary and appropriate to require control of individual mineral constituents discharged into the WRCRWTP to the Santa Ana River to ensure that the discharge from the WRCRWTP meets the waste discharge requirements contained in this Order for total dissolved solids (TDS) and various mineral constituents. The limits are based on the water quality objectives and waste load allocations for the Santa Ana River.

15. The 1995 Basin Plan includes a wasteload allocation for discharges of total dissolved solids (TDS) to the Santa Ana River system. In conformance with the wasteload allocation, this Order specifies a TDS limit of 625 mg/l for discharges from the facility. An alternative limit based on the TDS quality of the water supply in the service area plus a 250 mg/l TDS increment is also specified. The more restrictive of the two TDS limits applies. The Basin Plan recognizes that strict compliance with the TDS wasteload allocation may be difficult to achieve. The Basin Plan describes the regulatory approach the Regional Board uses to address such situations. The Board incorporates offset provisions in waste discharge requirements whereby dischargers can participate in approved programs to offset TDS discharges in excess of specified TDS limits, provided that the discharger makes all reasonable efforts to improve the TDS quality of the water supply (and, thereby, the wastewater). This Order provides that participation in an approved TDS study would constitute an acceptable salt offset program. The discharger is not presently able to comply with the 625 mg/l TDS limit. The discharger proposes to offset TDS discharges in excess of this limit by:

    a. Participating in the TIN/TDS study; and

    b. WRCRWA would assure that sufficient high quality product water from Arlington Basin Desalter continues to be discharged to the Santa Ana River to offset the impacts of the poorer quality discharge from the WRCRWTP. The offset maintains water quality and protects the beneficial uses of the Santa Ana River and downstream groundwater basins.

    Participation in the TIN/TDS study, coupled with the continued discharge of product water from the Arlington Desalter is an acceptable TDS offset for the duration of the study or, if the discharger elects to discontinue its involvement, for the duration of the discharger's participation in the study. This Order requires the discharger to implement this offset proposal.

16. Total dissolved solids is essentially the summation of the concentrations of sodium, sulfate, chloride and total hardness (carbonates) in water. The water quality objectives for these individual mineral constituents are commensurate with the TDS objective for a groundwater subbasin. An exceedance of the TDS objective would, consequently, result in an exceedance of one or more of the objectives for these components of TDS. Therefore, although the offset provision mentioned above specifically addresses only TDS, it is reasonable that this provision should also apply to those individual mineral components of TDS.

17. This Order specifies that the TDS and mineral limits apply unless the discharger implements an approved program to offset TDS and mineral constituent discharges in excess of the Chino III Groundwater Subbasin objectives and wasteload allocation.

18. The Basin Plan includes a nitrogen wasteload allocation which specifies a 10 mg/l total inorganic nitrogen (TIN) limit for new publicly owned treatment works (POTW) discharges to Reach 3 of the Santa Ana River.

19. The TIN/TDS Task Force that is conducting the watershed-wide TIN/TDS study has evaluated historic and current ambient water quality throughout the Santa Ana River watershed. The Task Force consultants have developed recommendations for revised groundwater basin boundaries and revised water quality objectives. During the year 2003, the Regional Board expects to consider one or more Basin Plan amendments to incorporate these revised objectives and groundwater management zone boundaries for the entire watershed. This Order will be reopened if appropriate to incorporate revised limits.

20. This Order includes limitations on mineral, inorganic and toxic substances for the protection of the quality and beneficial uses of the affected receiving waters, including the Santa Ana River.

21. As required by the Clean Water Act and regulations adopted thereunder, the chemical specific limitations contained in this Order are designed to prevent a violation of any applicable water quality standard for receiving waters adopted by the Regional Board or the State Board. If more stringent applicable water quality standards are approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Regional Board may modify this Order in accordance with such more stringent standards.

22. The This Order implements federal regulations specified in 40 CFR 122, 123, 124, 125, and 129, which pertain to all publicly-owned treatment works (POTW) with average design flows exceeding 1 mgd.

23. This Order include requirements for the implementation of an effective pretreatment program pursuant to Section 307 of the Federal Clean Water Act Parts 35 and 403 of Title 40, Code of Federal Regulations (40 CFR 35 and 40 CFR 403) and Section 2233, Title 23, California Code of Regulations. An effective pretreatment program is required for those publicly owned treatment works, which have a design capacity at or greater than 5 million gallons per day, or are receiving flows and pollutants from industrial users that pass through or interfere with the operation of the POTW, or are otherwise subject to pretreatment standards.

24. Effluent limitations, national standards of performance, and toxic pretreatment effluent standards established pursuant to Section 208(b), 301, 302, 303(d), 304, 306, and 307 of the Clean Water Act, and amendments thereto, are applicable to the discharge.

25. Article 3, Section 60305, of Title 22, Division 4, Chapter 3, "Water Recycling Criteria" of the California Code of Regulations specifies that recycled water used as a source supply for nonrestricted recreational impoundments shall be disinfected tertiary recycled water that has been subjected to conventional treatment. Section 60305 also provides that disinfected tertiary recycled water that has not received conventional treatment may be used for nonrestricted recreational impoundments provided that the recycled water is monitored for the presence of pathogenic organisms in accordance with certain conditions. The degree of treatment specified represents an approximately 5-log reduction in the virus content of the water. The State Department of Health Services (DHS) has determined that this degree of virus removal is necessary to protect the health of people using these impoundments for water contact recreation.

26. The DHS has developed wastewater disinfection guidelines ("Wastewater Disinfection for Health Protection", DHS, Sanitary Engineering Branch, February 1987) for discharges of wastewater to surface waters where water contact recreation (REC-1) is a beneficial use. The disinfection guidelines recommend the same treatment requirements for wastewater discharges to REC-1 waters as those stipulated in Title 22 for supply of recycled water to nonrestricted recreational impoundments, since the public health risks under both scenarios are analogous. The disinfection guidelines are based on sound science and are widely used as guidance to assure public health and beneficial use protection.

27. The Santa Ana River is not a "nonrestricted recreational impoundment," nor is "disinfected tertiary recycled water[1]" being used as a supply source for the River. However, except during major storms, most of the flow in the River is composed of treated municipal wastewater discharges. The River is used for water contact recreation and, accordingly, is designated REC-1 (water contact beneficial use). People recreating in the River face an exposure similar to those coming in contact with disinfected tertiary recycled water in an impoundment. Therefore, to protect the water contact recreation beneficial use and to prevent nuisance and health risk, it is necessary and appropriate to require the same degree of treatment for wastewater discharges to the River as would be required for the use of disinfected tertiary recycled water in a non-restricted recreational impoundment.

28. On April 17, 1997, the State Board adopted the General Industrial Storm Water Permit, Order No. 97-03-DWQ, NPDES No. CAS000001. This General Permit implements the Final Regulations (40 CFR 122, 123, and 124) for storm water runoff published on November 16, 1990 by EPA in compliance with Section 402(p) of the Clean Water Act (CWA). WRCRWA reports that there are no direct stormwater discharges to surface waters from the facility site. All stormwater is contained onsite and channeled to the treatment plant headworks for treatment prior to discharge.

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[1] *As defined in Section 60301.230. Article 1 of Title 22, Division 4, Chapter 3 California Code of Regulations "Water Recycling Criteria."*

29. On May 18, 2000, the U.S. Environmental Protection Agency (EPA) issued a final rule for the establishment of Numeric Criteria for Priority Toxic Pollutants necessary to fulfill the requirements of Section 303(c)(2)(B) of the Clean Water Act for the State of California. This rule is commonly referred to as the California Toxics Rule (CTR).

30. Federal Regulations require permits to include limitations for all pollutants that are or may be discharged at a level that will cause, have the reasonable potential to cause, or contribute to an excursion of a water quality standard.

31. On March 2, 2000, the State Water Resources Control Board adopted the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California (the Policy). This Policy includes implementation provisions for the CTR. The Policy specifies a methodology to determine if pollutants in the discharge are at a level that will cause, have the reasonable potential to cause, or contribute to an excursion of a water quality standard, and delineates procedures to be used to calculate appropriate limits.

32. This Order implements relevant provisions of the CTR and the State Board Policy. Based on the methodology outlined in the State Board Policy, six priority pollutants (cadmium, copper, lead, mercury, cyanide and selenium) are found to pose a reasonable potential to cause or contribute to an excursion of a water quality standard.

33. In its January 8, 2001, guidance document, the US EPA finds that a fish tissue residue water quality criterion for methylmercury (Water Quality Criterion for the Protection of Human Health: Methylmercury - EPA-823-R-01-001, January 2001) is more appropriate than a water column based water quality criterion. The EPA further states that a fish tissue residue water quality criterion is more closely tied to the Clean Water Act goal of protecting the public health because it is based directly on the human exposure route for methylmercury. Consequently, this Order specifies a receiving water limitation in fish tissue of 0.3 mg methylmercury/kg.

34. On February 19, 1993, the USEPA issued a final rule for the use and disposal of sewage sludge, 40 CFR, Part 503. This rule requires that producers of sewage sludge meet certain reporting, handling, and disposal requirements. The State of California has not been delegated the authority to implement this program, therefore, the U.S. Environmental Protection Agency is the implementing agency.

35. In accordance with Water Code Section 13389, the issuance of waste discharge requirements for this discharge is exempt from those provisions of the California Environmental Quality Act contained in Chapter 3 (commencing with Section 21100), Division 13 of the Public Resources Code.

36. The Regional Board has considered antidegradation pursuant to 40 CFR 131.12 and State Board Resolution No. 68-16. The water quality of the receiving waters is not expected to degrade as a result of this discharge. Neither the constituent concentrations of the discharge nor the mass loading of pollutants associated with the discharge will adversely impact water quality or affect the beneficial uses of the receiving waters.

37. The Regional Board has notified the discharger and other interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity to submit their written views and recommendations.

38. The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the discharger, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. DISCHARGE SPECIFICATIONS:

1. The discharge of wastes containing constituent concentrations in excess of the following limits is prohibited:

   a. Biological/Ammonia Limitations:

      (1). For effluent without a 20:1 dilution (receiving water flow[2]:wastewater flow)

Constituent	Average Weekly	Average Monthly	Average Weekly Emission Rate[3]	Average Monthly Emission Rate
	(mg/l)	(mg/l)	(lbs/day)	(lbs/day
Biochemical Oxygen Demand$_{5,}$ 20^0C	30	20	2,002	1,334
Suspended Solids	30	20	2,002	1,334
Ammonia-Nitrogen	--	5	--	334

[2] *Exclusive of discharges to surface water from upstream publicly owned treatment works.*

[3] *Mass emission rates shown in and all other tables in this Order are based on 8 mgd.*

(2). For effluent with a 20:1 dilution (receiving water flow[4]:wastewater flow)

Constituent	Average Weekly	Average Monthly	Average Weekly Emission Rate[5]	Average Monthly Emission Rate
	(mg/l)	(mg/l)	(lbs/day)	(lbs/day
Biochemical Oxygen Demand$_5$ 20^0C	45	30	3,002	2,002
Suspended Solids	45	30	3,002	2,002

b. TDS/Mineral Limitations:

(1) The 12-month average constituent concentrations and mass emission rates shall not exceed the values in the following table, unless:

(a) The discharger demonstrates to the satisfaction of the Regional Board's Executive Officer that:

i. Discharges in excess of the following values are due to the quality of water supply sources utilized in the discharger's service area, and that all reasonable steps, as agreed upon by the Executive Officer, have been taken to ensure that the best quality supplies are obtained and utilized in the discharger's service area; or

ii. Discharges in excess of the following values are due solely to chemical additions in the treatment process needed to meet waste discharge requirements, and the discharger has taken all steps to optimize chemical additions so as to minimize the increases; and

(b) The discharger implements a plan to offset discharges in excess of the following values. Flow-weighted average method shall be used to calculate concentration of the discharge from the WRCRWTP combined with the portion of the product water discharged to the Santa Ana from the Arlington Basin Desalter.

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4 *Exclusive of discharges to surface water from upstream publicly owned treatment works.*

5 *Mass emission rates shown in and all other tables in this Order are based on 8 mgd.*

Constituent	12-Month Average Concentration[6] (mg/l)	12-Month Average Mass Emission Rate (lbs/day)
Chloride	140	9,341
Sodium	110	7,339
Sulfate	150	10,008
Total Hardness	350	23,352
Total Dissolved Solids	625	41,700

(2) The 12-month average total dissolved solids concentration of the wastewater shall not exceed the 12-month average total dissolved solids concentration in the water supply by more than 250 mg/l, unless:

(a) The discharger demonstrates to the satisfaction of the Regional Board's Executive Officer that TDS discharges in excess of the 250 mg/l mineral increment are due solely to chemical additions in the treatment process needed to meet waste discharge requirements, and the discharger has taken all steps to optimize chemical additions so as to minimize the TDS increases; and

(b) The discharger implements a plan, with the approval of the Executive Officer, to offset TDS discharges in excess of the 250 mg/l mineral increment.

c. Total Inorganic Nitrogen (TIN) Limitations:

Constituent	12-Month Average Concentration[7] (mg/l)	12-Month Average Mass Emission Rate (lbs/day)
Total Inorganic Nitrogen (TIN)	10	667

[6] *These limits are intended to meet surface water quality objectives established to protect groundwater.*

[7] *These limits are intended to meet surface water quality objectives established to protect groundwater.*

d. Trace Constituent Limitations:

Constituent	Maximum Daily Limit (µg/l)	Average Monthly Limit (µg/l)	Daily Mass Rate (lbs/day)	Average Monthly Mass Rate (lbs/day)
Total Recoverable Cadmium	8	6	0.53	0.40
Total Recoverable Copper	76.5	38	5.10	2.54
Total Recoverable Lead[8]	61.5	30.7	4.10	2.05
Cyanide	8	4	0.53	0.27
Total Recoverable Mercury	0.10	0.05	0.007	0.003
Total Recoverable Selenium	8	4	0.53	0.27
Limits for hardness dependent metals were computed based on a 230 mg/l hardness[9] value.				

2. The discharge shall at all times be a filtered and subsequently disinfected wastewater that meets the following criteria:

   a. Filtered wastewater means an oxidized wastewater that meets either (1) or (2):

      (1) Has been coagulated and passed through natural undisturbed soils or a bed of filter media pursuant to the following:

         (a) At a rate that does not exceed 5 gallons per minute per square foot of surface area in mono, dual or mixed media gravity, upflow or pressure filtration systems, or does not exceed 2 gallons per minute per square foot of surface area in traveling bridge automatic backwash filters, based on peak dry weather design flow; and

         (b) The turbidity of the filtered wastewater does not exceed any of the following:

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8 *See Section J.4.*

9 *This hardness value is the 95th percentile of effluent hardness values between April 1998 and April 2002.*

i. An average of 2 Nephelometric Turbidity Unit (NTU) within a 24-hour period;

ii. 5 NTU more than 5 percent of the time within a 24-hour period; and

iii. 10 NTU at any time[10].

(2) Has been passed through a microfiltration, ultrafiltration, nanofiltration, or reverse osmosis membrane so that the turbidity of the filtered wastewater does not exceed any of the following:

(a) 0.2 NTU more than 5 percent of the time within a 24-hour period; and

(b) 0.5 NTU at any time.

b. Disinfected tertiary wastewater shall mean a filtered wastewater that has been disinfected and meets the following criteria:

(1) The filtered wastewater has been disinfected by either:

(a) A chlorine disinfection process following filtration that provides a CT (the product of total chlorine residual and modal contact time measured at the same point) value of not less than 450 milligram-minutes per liter at all times with a modal contact time of at least 90 minutes, based on peak dry weather design flow; or

(b) A disinfection process that, when combined with the filtration process, demonstrates inactivation and/or removal of 99.999 percent of the plaque-forming units of F-specific bacteriophage MS-2[11], or polio virus in the wastewater. A virus that is at least as resistant to disinfection as polio virus may be used for purposes of the demonstration. Where ultraviolet (UV) disinfection is used for disinfection, UV disinfection shall deliver under worst operating conditions a minimum UV dose of 140 milli-watts seconds per square centimeter (mW-s/cm2) at maximum weekly flow and 100 mW-s/cm2 at peak flow (maximum day), unless otherwise approved by the Department of Health Services.

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10 *See Section F.7., "Compliance Determination."*

11 *F-Specific bacteriophage MS-2 means a strain of a specific type of virus that infects coliform bacteria that is traceable to the American Type Culture Collection (ATCC) 15597B1) and is grown on lawns of E. coli (ATCC 15597).*

(2) The average weekly concentration of total coliform bacteria measured in the disinfected effluent shall not exceed an MPN of 2.2 per 100 milliliters. The average weekly concentration shall be evaluated using the median of the bacteriological results of the last seven days[12].

(3) The number of total coliform bacteria shall not exceed an MPN of 23 per 100 milliliters in more than one sample in any calendar month.

(4) The number of total coliform bacteria shall not exceed an MPN of 240 per 100 milliliters in any sample.

c. A coagulated wastewater shall be an oxidized wastewater in which colloidal and finely divided suspended matter have been destabilized and agglomerated upstream from a filter by the addition of suitable floc-forming chemicals.

d. An oxidized wastewater shall be wastewater in which the organic matter has been stabilized, is non-putrescible, and contains dissolved oxygen.

3. The monthly average biochemical oxygen demand and suspended solids concentrations of the discharge shall not be greater than fifteen percent (15%) of the monthly average influent concentrations.

4. The discharge of any substances in concentrations toxic to animal or plant life in the affected receiving water is prohibited.

5. There shall be no visible oil and grease in the discharge.

6. The pH of the discharge shall be within 6.5 and 8.5 pH[13].

B. TOXICITY REQUIREMENTS:

1. This Order contains no numeric limitation for toxicity. However, the discharger shall conduct chronic toxicity monitoring as specified in Monitoring and Reporting Program (M&RP) No. R8-2002-00-24.

2. The discharger shall implement the accelerated monitoring as specified in Section D.4. of the M&RP No. R8-2002-00-24 when the result of any single chronic toxicity test of the effluent exceeds 1.0 TUc.

3. The discharger shall develop an Initial Investigation Toxicity Reduction Evaluation (IITRE) work plan that describes the steps the discharger intends to follow if required by Toxicity Requirement No. 4, below. The work plan shall include at a minimum:

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12 *See Section F.8., "Compliance Determination."*

13 *See Section F.6., "Compliance Determination."*

a. A description of the investigation and evaluation techniques that will be used to identify potential causes/sources of the exceedance, effluent variability, and/or efficiency of the treatment system in removing toxic substances. This shall include a description of an accelerated chronic toxicity testing program.

b. A description of the methods to be used for investigating and maximizing in-house treatment efficiency and good housekeeping practices.

c. A description of the evaluation process to be used to determine if implementation of a more detailed TRE\TIE is necessary.

4. The discharger shall implement the IITRE work plan whenever the results of chronic toxicity tests of the effluent exceed:

a. A two month median value of 1.0 TUc for survival or reproduction endpoint or,

b. Any single test value of 1.7 TUc for survival endpoint.

5. The discharger shall develop a detailed Toxicity Reduction Evaluation and Toxicity Identification Evaluation (TRE/TIE) work plan that shall describe the steps the discharger intends to follow if the implemented IITRE fails to identify the cause of, or rectify, the toxicity.

The discharger shall use as guidance, at a minimum, EPA manuals EPA/600/2-88/070 (industrial), EPA/600/4-89-001A (municipal), EPA/600/6-91/005F (Phase I), EPA/600/R-92/080 (Phase II), and EPA-600/R-92/081 (Phase III) to identify the cause(s) of toxicity. If during the life of this Order the aforementioned EPA manuals are revised or updated, the revised/updated manuals may also be used as guidance. The detailed TRE/TIE work plan shall include:

a. Further actions to investigate and identify the cause of toxicity;
b. Actions the discharger will take to mitigate the impact of the discharge and to prevent the recurrence of toxicity; and
c. A schedule for these actions.

6. The discharger shall implement the TRE/TIE workplan if the IITRE fails to identify the cause of, or rectify, the toxicity, or if in the opinion of the Executive Officer the IITRE does not adequately address an identified toxicity problem.

7. The discharger shall assure that adequate resources are available to implement the required TRE/TIE.

C. RECEIVING WATER LIMITATIONS[14]:

1. The discharge of wastes shall not cause a violation of any applicable water quality standards for receiving waters adopted by the Board or State Board, as required by the Clean Water Act and regulations adopted thereunder.

2. The discharge shall not cause any of the following:

   a. Coloration of the receiving waters which causes a nuisance or adversely affects beneficial uses.

   b. Deposition of oil, grease, wax or other materials in the receiving waters in concentrations which result in a visible film or in coating objects in the water, or which cause a nuisance or affect beneficial uses.

   c. An increase in the amounts of suspended or settleable solids in the receiving waters which will cause a nuisance or adversely affect beneficial uses as a result of controllable water quality factors.

   d. Taste or odor producing substances in the receiving waters at concentrations which cause a nuisance or adversely affect beneficial uses.

   e. The presence of radioactive materials in the receiving waters in concentrations which are deleterious to human, plant or animal life.

   f. The depletion of the dissolved oxygen concentration below 5.0 mg/l.

   g. The temperature of the receiving waters to be raised above 90°F (32°C) during the period of June through October, or above 78°F (26°C) during the rest of the year.

   h. The concentration of pollutants in the water column, sediments, or biota to adversely affect the beneficial uses of the receiving water. The discharge shall not result in the degradation of inland surface water communities and populations, including vertebrate, invertebrate, and plant species.

3. Pollutants not specifically mentioned and limited in this Order shall not be discharged at levels that will bioaccumulate in aquatic resources to levels, which are harmful to human health.

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[14] *Receiving water limitations are specific interpretations of water quality objectives from applicable water quality control plans. As such, they are a required part of this Order. A receiving water condition not in conformance with any of these receiving water limitations is not necessarily a violation of this Order. The Regional Board may require an investigation to determine the cause and culpability prior to asserting a violation has occurred, or requiring that corrective action be taken.*

4. The discharge shall not contain constituent concentrations of mercury that will result in the bioaccumulation of methylmercury in fish flesh tissue greater than 0.3 milligram methylmercury/kilogram fish.

D. STORM WATER REQUIREMENTS:

1. Storm water[15] discharges from the WRCRWTP shall not:

   a. cause or contribute to a violation of any applicable water quality standards contained in the Basin Plan, or in the State or Federal regulations.

   b. cause or threaten to cause pollution, contamination, or nuisance.

   c. contain a hazardous substance equal to or in excess of a reportable quantity listed in 40 CFR Part 117 and/or 40 CFR Part 302.

   d. adversely impact human health or the environment.

   e. result in noncompliance with the lawful requirements of municipalities, counties, drainage districts, and other local agencies on storm water discharges into storm drain systems or other courses under their jurisdiction.

2. The discharger shall develop and implement a Storm Water Pollution Prevention Plan for the treatment facility in accordance with Attachment "A" of this Order. The discharger shall update as necessary and implement the Storm Water Pollution Prevention Plan.

E. PRETREATMENT REQUIREMENTS:

1. The discharger shall update as necessary and appropriate the contractual agreements with all governmental agencies[16]. The contractual agreements shall give the discharger the authority to implement and enforce the EPA approved pretreatment program within the sewer service areas of the treatment facility. The discharger shall assure that any other steps necessary to provide this implementation and enforcement authority (e.g. adoption of ordinances, etc.) are taken by all governmental agencies. If a governmental agency has an EPA approved pretreatment program for any portion of the service area of the treatment facility, the discharger's pretreatment program shall contain provisions ensuring that that governmental agency's program is implemented. In the event that any contributory agency fails to effectively implement its individual EPA approved pretreatment program, the discharger shall implement and enforce its approved program within that agency's service area.

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15 *Storm water means storm water runoff and surface runoff drainage.*

16 *Member agencies and sewering agencies discharging wastewater into the facility.*

2. The discharger shall ensure that the POTW[17] pretreatment program for all contributory agencies to the treatment facility are implemented and enforced. The discharger shall be responsible and liable for the performance of all Control Authority pretreatment requirements contained in 40 CFR 403, including any subsequent regulatory revisions to Part 403. Where Part 403 or subsequent revisions place mandatory actions upon the discharger as Control Authority but does not specify a timetable for completion of the actions, the discharger shall submit for approval of the Regional Board's Executive Officer, a schedule for implementation of the required actions and shall implement the approved schedule. The schedule for implementation shall be submitted within six months from the date that such mandatory actions are established. For violations of pretreatment requirements, the discharger shall be subject to enforcement actions, penalties, fines and other remedies by the EPA, or other appropriate parties, as provided in the CWA, as amended (33 USC 1351 et seq.). The EPA or the Regional Board may also initiate enforcement action against an industrial user (IU) for non-compliance with applicable standards and requirements as provided in the CWA.

3. The discharger shall perform the pretreatment functions as required in 40 CFR Part 403 including, but not limited to:

   a. Enforce the pretreatment requirements under 40 CFR 403.5 and 403.6;

   b. Implement the necessary legal authorities as provided in 40 CFR 403.8(f)(1);

   c. Implement the programmatic functions as provided in 40 CFR 403.8(f)(2);

   d. Publish a list of significant non-compliance as required by 40 CFR 403.8(f)(2)(vii), and

   e. Provide the requisite funding and personnel to implement the pretreatment program as provided in 40 CFR 403.8(f)(3).

4. The following wastes shall not be introduced into the treatment works:

   a. Wastes which create a fire or explosion hazard in the treatment works;

   b. Wastes which will cause corrosive structural damage to treatment works, but, in no case, wastes with a pH lower than 5.0 unless the works are designed to accommodate such wastes;

   c. Wastes at a flow rate and/or pollutant discharge rate which is excessive over relatively short time periods so that there is a treatment process upset and subsequent loss of treatment efficiency;

   d. Solid or viscous wastes in amounts which would cause obstruction to the flow in sewers or otherwise interfere with the proper operation of the treatment works.

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17 *Publicly owned treatment works.*

5. The discharger shall ensure compliance with any existing or future pretreatment standard promulgated by EPA under Section 307 of the CWA or amendments thereto for any discharge to the municipal system.

6. The discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement.

7. The discharger shall require each user not in compliance with any pretreatment standard to submit periodic notice (over intervals not to exceed nine months) of progress toward compliance with applicable toxic and pretreatment standards developed pursuant to the CWA or amendments thereto. The discharger shall forward a copy of such notice to the Regional Board and to the EPA Regional Administrator.

F. COMPLIANCE DETERMINATION:

1. The "maximum daily" concentration is defined as the measurement made on any single grab sample or composite sample.

2. Compliance with average weekly and monthly discharge limitations specified under Discharge Specification A.1.a. and A.1.d. shall be determined from the average of the analytical results of all samples collected during a calendar week or month, respectively. Where a calendar week overlaps two different months, compliance shall be determined for the month in which the week ends.

3. Compliance with the 12-month average limit under Discharge Specifications A.1.b. and A.1.c. shall be determined by the arithmetic mean of the last twelve monthly averages.

4. Compliance with the concentration limitations specified in Discharge Specifications A.1.b.shall be based on the flow-weighted average concentrations of the discharge from the WRCRWTP and the portion of the product water discharged to the Santa Ana River from the Arlington Basin Desalter that has been allocated to WRCRWA for use to determine compliance with these waste discharge requirements.

5. The discharger shall be deemed out of compliance with an effluent limitation if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation.

    a. Until March 1, 2003, compliance determination shall be based on the practical quantitation levels[18] (PQL) specified in Attachment "A" of M&RP No. R8-2002-00-24 or on the lower reporting level that may reasonably be achieved by the discharger with prior approval by the Executive Officer of the Regional Board.

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[18] *PQL is the lowest concentration of a substance which can be determined within ± 20 percent of the true concentration by 75 percent of the analytical laboratories tested in a performance evaluation study. Alternatively, if performance data are not available, the PQL is the method detection limit (MDL) x 5 for carcinogens and MDL x 10 for noncarcinogens.*

b. As of March 1, 2003, compliance determination shall be based on the quantification levels specified in Attachment "B" of the Monitoring and Reporting Program No. R8-2002-00-24, unless an alternative minimum level[19] (ML) is approved by the Regional Board's Executive Officer.

c. When determining compliance with an average monthly limit and more than one sample result is available in a month, the discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of detected but not quantified (DNQ) or not detected (ND). In those cases, the discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

1) The data set shall be ranked from low to high, reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.

2) The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ. If a sample result, or the arithmetic mean or median of multiple sample results, is below the reported ML, and there is evidence that the priority pollutant is present in the effluent above an effluent limitation and the discharger conducts a pollutant minimization program (PMP)[20] (as described in Section E.6.), the discharger shall not be deemed out of compliance.

6. Pursuant to 40 CFR 401.17, the discharger shall be in compliance with the pH limitation specified in this Order (Discharge Specifications A.7., above), provided that both of the following conditions are satisfied:

a. The total time during which the pH values are outside the required range of 6.5-8.5 pH values shall not exceed 7 hours and 26 minutes in any calendar month; and

b. No individual excursion from the range of pH values shall exceed 60 minutes.

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[19] *Minimum level is the concentration at which the entire analytical system must give a recognizable signal and acceptable point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.*

[20] *The goal of the PMP shall be to reduce all potential sources of a priority pollutant(s) through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation.*

7. Exceedances of the "10 NTU at any time" turbidity requirement referenced in Discharge Specifications A.2.a.(1)(b)iii. shall not be considered a violation of these waste discharge requirements if such exceedance does not exceed a duration of one minute. The discharger shall not be considered to be in violation of this requirement if the apparent exceedance was caused by interference with, or malfunction of, the monitoring instrument. If the discharger is using a properly operating backup turbidimeter, the reading of the backup turbidimeter shall be considered in determining whether there has been an actual noncompliance.

8. Compliance with the weekly average total coliform limit expressed in Discharge Specification A.2.b.(2) shall be based on a running median of the test results from the previous 7 days. To comply with the weekly average limit, the 7-day median MPN must not exceed 2.2 per 100 milliliters on any day during the week. However, only one violation is recorded for each calendar week, even if the 7-day median MPN value is greater than 2.2 for more than one day in the week.

9. Compliance determinations shall be based on available analyses for the time interval associated with the effluent limitation. Where only one sample analysis is available in a specified time interval (e.g., monthly or weekly average), that sample shall serve to characterize the discharge for the entire interval. If quarterly sample results show noncompliance with the average monthly limit and that sample result is used for compliance determinations for each month of the quarter, then three separate violations of the average monthly limit shall be deemed to have occurred.

10. Compliance with a single effluent limitation which applies to a group of chemicals (e.g., PCBs), based on a single sample shall be determined by considering the concentrations of individual members of the group to be zero if the analytical response for the individual chemical falls below the method detection limit (MDL or PQL) for that chemical.

11. For non-priority pollutants, compliance based on a single sample analysis shall be determined where appropriate, as described below:

    a. When the effluent limitation is greater than or equal to the PQL, compliance shall be determined based on the effluent limitation in either single or multiple sample analyses.

    b. When the effluent limitation is less than the PQL, compliance determinations based on analysis of a single sample shall only be undertaken if the concentration of the constituent of concern in the sample is greater than or equal to the PQL.

12. For non-priority pollutants, the discharge shall be considered to be in compliance with an effluent limitation which is less than or equal to the PQL specified in Attachment "A" of M&RP No. R8-2002-00-24 if the arithmetic mean of all test results for the monitoring period is less than the constituent effluent limitation. Analytical results that are less than the specified PQL shall be assigned a value of zero.

13. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with permit effluent limitations because of factors beyond the reasonable control of the discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper action. A discharger that wishes to establish the affirmative defense of an upset in an action brought for non-compliance shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:

    a. an upset occurred and that the discharger can identify the cause(s) of the upset;

    b. the permitted facility was being properly operated at the time of the upset;

    c. the discharger submitted notice of the upset as required in Section F.15., below; and

    d. the discharger complied with any remedial measures required under Section H.8., below.

    No determination made before an action for noncompliance, such as during administrative review of claims that noncompliance was caused by an upset, is final administrative action subject to judicial review. In any enforcement proceeding, the discharger seeking to establish the occurrence of an upset has the burden of proof.

G. REQUIRED NOTICES AND REPORTS:

1. Reporting Provisions:

   a. All applications, reports, or information submitted to the Regional Board shall be signed and certified in accordance with 40 CFR 122.22 except as otherwise specified by the Regional Board's Executive Officer.

   b. The discharger shall furnish, within a reasonable time, any information the Regional Board or EPA may request to determine compliance with this Order or whether cause exists for modifying, revoking and reissuing, or terminating this Order. The discharger shall also furnish to the Regional Board, upon request, copies of records required to be kept by this Order.

   c. Except for data determined to be confidential under Section 308 of the CWA, all reports prepared in accordance with the terms of this Order shall be available for public inspection at the offices of the Regional Board and the Regional Administrator of EPA. As required by the CWA, effluent data shall not be considered confidential. Knowingly making any false statements on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the CWA and Section 13387 of the California Water Code.

2. By December 1, 2002, the discharger shall notify the Executive Officer of its continuous involvement with the comprehensive methylmercury investigation program currently being conducted by a group of Santa Ana River system dischargers. If the discharger discontinues its involvement with this comprehensive program, the discharger shall, within 60 days of that date, submit for the approval of the Executive Officer its plan for the annual testing of methylmercury levels in fish flesh samples collected from the Santa Ana River, upstream of, at, and downstream of the point of the River's confluence with the existing flood control channel where treatment plant treated effluent is discharged. Upon approval, the discharger shall implement the plan.

3. By December 1, 2002, the discharger shall submit an updated written description of electrical power failure safeguards. Such safeguards may include alternate power sources, standby generators, retention capacity, operating procedures, or other means. The description of the safeguards provided shall include an analysis of the frequency, duration, and impact of power failures experienced over the past year(s) of treatment plant operation on effluent quality and on the capability of the discharger to comply with the requirements of this Order. Deficiencies in present safeguards must be identified together with a plan for any necessary corrective actions. The adequacy of the safeguards and the corrective action plan (if necessary) is subject to the approval of the Executive Officer.

4. By December 1, 2002, the discharger shall submit an updated technical report on the discharger's preventive (failsafe) and contingency (response and cleanup) plans for controlling accidental discharges and for minimizing the effect of such events. This technical report may be combined with that required under Section E.3., above. The technical report shall:

    a. Identify the possible sources of accidental loss, untreated waste bypass, and contaminated drainage. Loading and storage areas, power outage, waste treatment outage, and failure of process equipment, tanks, and pipes should be considered;

    b. Evaluate the effectiveness of present facilities and procedures and state when they become operational;

    c. Describe any new facilities and procedures needed. Predict the effectiveness of the proposed facilities and procedures and provide an implementation schedule containing interim and final dates when they will be constructed, implemented, or operational; and

    d. Describe proposed and completed training programs and schedules to train and familiarize plant operating personnel with the discharger's preventive (failsafe) and contingency (response and cleanup) plans for controlling accidental discharges and for minimizing the effect of such events.

5. By December 1, 2002, the discharger shall submit a copy of the Initial Investigation Toxicity Reduction Evaluation work plan specified in Toxicity Requirement B.3. of this Order.

6. By December 1, 2002, the discharger shall submit a copy of the TRE/TIE work plan specified in Toxicity Requirement B.5. of this Order.

7. By December 1, 2002, the discharger shall submit for approval by the Executive Officer, a report which details the manner in which sampling, monitoring and reporting will be performed as required in this Order.

8. The discharger shall orally notify the Executive Officer of the Regional Board, or designee, within 24 hours of a discharge of secondary treated and disinfected wastewater into the River.

9. The discharger shall give advance notice to the Regional Board of any planned physical alterations or additions to the permitted facility or changes in operation or activity that may result in noncompliance with these waste discharge requirements.

10. The discharger shall provide adequate notice to the Regional Board of:

a. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to Sections 301 or 306 of the CWA if it were directly discharging those pollutants.[21]

b. Any change in the volume or character of pollutants being introduced by an existing or new source into the treatment facility that will cause or threaten to cause a violation of this Order.

c. Any planned changes in the discharger's biosolids use or disposal practice, or provision of additional disposal sites not reported during the permit application process.

d. Any proposed change in the character, location, or method of disposal of the discharge, or any proposed change in ownership of the facility.

e. All instances of noncompliance. Reports of noncompliance shall be submitted with the discharger's next scheduled self-monitoring report or earlier, as specified in this Order, or if requested by the Executive Officer, or if required by an applicable standard for biosolids use and disposal.

11. The discharger shall file a written report with the Regional Board within ninety (90) days after the average dry-weather waste flow for any month equals or exceeds 75 percent of the design capacity of the waste treatment and/or disposal facilities. The discharger's senior administrative officer shall sign a letter, which transmits that report and certifies that the policy-making body is adequately informed about it. The report shall include:

    a. Average daily flow for the month, the date on which the instantaneous peak flow occurred, the rate of that peak flow, and the total flow for the day.

    b. The discharger's best estimate of when the average daily dry-weather flow rate will equal or exceed the design capacity of the treatment facilities.

    c. The discharger's intended schedule for studies, design, and other steps needed to provide additional capacity for the waste treatment and/or disposal facilities before the waste flow rate equals the capacity of present units.

12. The discharger shall file with the Regional Board a Report of Waste Discharge at least 180 days before making any material change in the character, location, or volume of the discharge. A material change includes, but is not limited to, the following:

    a. Adding a major industrial waste discharge to a discharge of essentially domestic sewage, or adding a new process or product by an industrial facility resulting in a change in the character of the waste.

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[21] *Adequate notice shall include information on the quality and quantity of effluent introduced, and any anticipated impact of the change on the quantity or quality of the discharger's effluent and/or sludge.*

b. Significantly changing the disposal method or location, such as changing the disposal to another drainage area or water body.

c. Significantly changing the method of treatment.

d. Increasing the treatment plant design capacity beyond that specified in this Order.

e. The discharger shall submit a Title 22 Engineering Report for review and approval by the Department of Health Services before making any of the material changes identified above. The Engineering Report shall be in compliance with the California Code of Regulations, Title 22, Chapter 3.

13. The discharger shall immediately report any condition related to the discharger's collection, treatment or disposal facilities that may endanger human health or the environment including any unauthorized discharge not regulated by this Order of treated, partially treated, or untreated wastewater from the discharger's collection, treatment, or disposal system in excess of 1000 gallons. All available information concerning the condition and/or unauthorized discharge shall be provided to the Executive Officer or the Executive Officer's designee (909-782-4130) and the Office of Emergency Services (1-800-852-7550), as soon as the discharger becomes aware of the circumstances. A written report shall be submitted within 5 days and shall contain a description of the condition and its cause; the duration of the condition, including exact dates and times, and, if the condition has not been corrected, the anticipated time it is expected to continue; and the steps taken or planned to reduce, eliminate, and prevent recurrence of the condition, with a schedule for their implementation. The following shall be included as information that must be reported within 24 hours under this paragraph:

a. Any unanticipated bypass that exceeds any requirement of this Order.

b. Any upset that exceeds any requirement of this Order.

c. Any violation of a maximum daily discharge limitation for any of the pollutants listed in this Order.

d. Any unauthorized discharge not regulated by this Order of treated, partially treated, or untreated wastewater resulting from the intentional or unintentional diversion of wastewater from a collection, treatment or disposal system.

e. The Executive Officer or the Executive Officer's designee may waive the above required written report on a case-by-case basis.

Discharges of less than 1,000 gallons that do not endanger human health or the environment shall be reported to the Executive Officer’s designee no later than the last day of the month following the month the discharges occurred.

H. PENALTIES:

1. Violation of any of the provisions of the NPDES program or of any of the provisions of this Order may subject the violator to any of the penalties described under Section 309(c) of the CWA, or any subsequent amendments to Section 309(c). The violator may be subjected to any combination of the penalties described herein at the discretion of the prosecuting authority; however, only one kind of penalty may be applied for each kind of violation.

2. The CWA provides that any person who violates any portion of this Order implementing Sections 301, 302, 306, 307, 308, 318, or 405 of the CWA, or any order requirement or limitation implementing any such sections in this Order, is subject to a civil penalty not to exceed $25,000 per day for each violation. The CWA provides that any person who willfully or negligently violates this Order with regard to these sections of the CWA is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than 1 year, or both. Any person who knowingly violates a provision implementing these sections is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment of not more than 3 years, or both.

3. The CWA provides that any person who knowingly falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this Order shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 2 years per violation, or by both.

4. The CWA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this Order, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 2 years per violation, or by both.

5. The California Water Code provides that any person who violates an order of the Regional Board is subject to civil penalties of up to $25,000 per day of violation, and when the violation involves the discharge of pollutants, additional civil penalties of up to $25 per gallon.

I. PROVISIONS:

1. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the CWA, or amendments thereto, that shall become effective 10 days after the date of adoption, provided the Regional Administrator of the EPA has no objection. If the Regional Administrator objects to its issuance, this Order shall not serve as an NPDES permit until such objection is withdrawn.

2. Neither the treatment nor the discharge of waste shall create, or threaten to create, a nuisance or pollution as defined by Section 13050 of the California Water Code.

3. This Order expires September 1, 2007 and the discharger must file a Report of Waste Discharge in accordance with Title 23, Division 3, Chapter 9 of the California Code of Regulations not later than 180 days in advance of this expiration date. The Report of Waste Discharge shall serve as the application for issuance of new waste discharge requirements.

4. The discharger shall comply with M&RP No. R8-2002-00-24. This monitoring and reporting program may be modified by the Executive Officer at any time during the term of this Order to include an increase in the number of parameters to be monitored, the frequency of the monitoring or the number and size of samples to be collected. Any such modifications may be reduced back to the levels specified in the original monitoring and reporting program at the discretion of the Executive Officer.

5. The discharger shall maintain a copy of this Order at the site so that it is available to site operating personnel at all times. Key operating personnel shall be familiar with its content.

6. The discharger shall conduct a Pollutant Minimization Program (PMP) when there is evidence that the priority pollutant is present in the effluent above an effluent limitation (e.g., sample results reported as detected but not quantified (DNQ) when the effluent limitation is less than the MDL, sample results from analytical methods more sensitive than those methods included in this Order, presence of whole effluent toxicity, health advisories for fish consumption, results of benthic or aquatic organism tissue sampling) and either: (i) A sample result is reported as DNQ and the effluent limitation is less than the reported ML; or (ii) A sample result is reported as ND and the effluent limitation is less than the MDL. The PMP shall include, but not be limited to, the following actions and submittals acceptable to the Regional Board:

   a. An annual review and semi-annual monitoring of potential sources of the reportable priority pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling;

   b. Quarterly monitoring for the reportable priority pollutant(s) in the influent to the wastewater treatment system;

   c. Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable priority pollutant(s) in the effluent at or below the effluent limitation;

   d. Implementation of appropriate cost-effective control measures for the reportable priority pollutant(s), consistent with the control strategy; and

   e. An annual status report that shall be sent to the Regional Board including:

      1) All PMP monitoring results for the previous year;
      2) A list of potential sources of the reportable priority pollutant(s);

3) A summary of all actions undertaken pursuant to the control strategy; and
4) A description of actions to be taken in the following year.

7. The discharger must comply with all of the requirements of this Order. Any violation of this Order constitutes a violation of the California Water Code and may constitute a violation of the CWA and its regulations, and is grounds for enforcement action, termination of this Order, revocation and re-issuance of this Order, denial of an application for re-issuance of this Order; or a combination thereof.

8. The discharger shall take all reasonable steps to:

   a. minimize or prevent any discharge that has a reasonable likelihood of adversely affecting human health or the environment.

   b. minimize any adverse impact to receiving waters resulting from noncompliance with any requirements specified in this Order, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

9. The discharger shall provide safeguards to assure that should there be reduction, loss, or failure of electric power, the discharger will comply with the requirements of this Order.

10. The discharger shall, at all times, properly operate and maintain all facilities and systems of treatment and control including sludge use, disposal facilities, and related appurtenances which are installed or used by the discharger to achieve compliance with this Order. Proper operation and maintenance includes adequate laboratory controls, appropriate quality assurance procedures, effective performance, adequate funding, adequate staffing and training, and adequate process controls. This provision requires the operation of back up or auxiliary facilities or similar systems, which are installed by a discharger only when the operation is necessary to achieve compliance with the requirements of this Order.

11. The discharger shall update as necessary, the "Operation and Maintenance Manual (O&M Manual)" which it has developed for the treatment plant to conform with latest plant changes and requirements. The O&M Manual shall be readily available to operating personnel onsite. The O&M Manual shall include the following:

   a. Description of the treatment plant table of organization showing the number of employees, duties and qualifications and plant attendance schedules (daily, weekends and holidays, part-time, etc). The description should include documentation that the personnel are knowledgeable and qualified to operate the treatment facility so as to achieve the required level of treatment at all times.

   b. Detailed description of safe and effective operation and maintenance of treatment processes, process control instrumentation and equipment.

   c. Description of laboratory and quality assurance procedures.

d. Process and equipment inspection and maintenance schedules.

e. Description of safeguards to assure that, should there be reduction, loss, or failure of electric power, the discharger will be able to comply with requirements of this Order.

f. Description of preventive (fail-safe) and contingency (response and cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. These plans shall identify the possible sources (such as loading and storage areas, power outage, waste treatment unit failure, process equipment failure, tank and piping failure) of accidental discharges, untreated or partially treated waste bypass, and polluted drainage.

12. The discharger's wastewater treatment plant shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to Title 23, Division 3, Chapter 14, California Code of Regulations.

13. The discharge of any radiological, chemical, or biological warfare agent or high level radiological waste is prohibited.

14. The provisions of this Order are severable, and if any provision of this Order, or the application of any provisions of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order shall not be affected thereby.

15. The filing of a request by the discharger for modification, revocation and re-issuance, or termination of this Order or a notification of planned changes or anticipated noncompliance does not stay any requirements of this Order.

16. The requirements prescribed herein do not authorize the commission of any act causing injury to the property of another, nor protect the discharger from liabilities under federal, state, or local laws, nor guarantee the discharger a capacity right in the receiving waters.

17. This Order does not convey any property rights of any sort, or any exclusive privilege.

18. This Order is not transferable to any person except after notice to, and approval by the Executive Officer. The Regional Board may require modification or revocation and re-issuance of this Order to change the name of the discharger and incorporate such other requirements as may be necessary under the CWA.

19. Collected screenings, sludge, and other solids removed from liquid wastes shall be disposed of in a manner approved by the Regional Board's Executive Officer.

20. If the discharger demonstrates a correlation between the biological oxygen demand (BOD) and total organic carbon (TOC) concentrations in the effluent to the satisfaction of the Executive Officer, compliance with the BOD limits contained in this Order may be determined based on analyses of the TOC of the effluent.

21. In the event of any change in control or ownership of land or waste discharge facility presently owned or controlled by the discharger, the discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to the Regional Board.

22. It shall not be a defense for a discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the requirements of this Order.

23. Bypass (the intentional diversion of waste streams from any portion of a treatment facility or collection system) is prohibited unless it is permitted under the terms of this Order. The Regional Board may take enforcement action against the discharger for unpermitted bypass unless:

    a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage. Severe property damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production;

    b. There were no feasible alternative to bypass, such as the use of auxiliary treatment facilities, retention of untreated waste, or maintenance during normal periods of equipment down time. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that could occur during normal periods of equipment down time or preventive maintenance; and

    c. The discharger submitted a notice to the Regional Board at least ten days in advance of the need for a bypass. The discharger may allow a bypass to occur that does not cause effluent limitations to be exceeded, but only if the by-pass is required for essential maintenance to assure efficient operation, and neither effluent nor receiving water limitations are exceeded. In such a case, the above bypass conditions are not applicable. The discharger shall promptly notify the Regional Board and the EPA within 24 hours of each such bypass.

24. The Regional Board, EPA, and other authorized representatives shall be allowed:

    a. Entry upon premises where a regulated facility or activity is located or conducted, or where records are kept under the requirements of this Order;

    b. Access to copy any records that are kept under the requirements of this Order;

c. To inspect any facility, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and

d. To photograph, sample and monitor for the purpose of assuring compliance with this Order, or as otherwise authorized by the CWA.

J. PERMIT RE-OPENING, REVISION, REVOCATION, AND RE-ISSUANCE:

1. This Order may be modified, revoked and reissued, or terminated for cause.

2. This Order may be reopened to address any changes in State or federal plans, policies or regulations that would affect the quality requirements for the discharges.

3. This Order may be reopened to include effluent limitations for pollutants determined to be present in the discharge in concentrations that pose a reasonable potential to cause or contribute to violations of water quality objectives.

4. This order may be reopened if the Regional Board or the discharger develops different site-specific and total-to-dissolved ratios for cadmium, copper, and lead, which are acceptable to the Regional Board's Executive Officer.

5. This Order may be reopened to include an appropriate bioaccumulation based effluent limit for mercury when scientifically defensible guidance is developed to translate methylmercury in fish tissue to total mercury in effluent discharges.

6. This Order may be reopened and modified in accordance with the requirements set forth at 40 CFR 122 and 124, to include the appropriate conditions or limits to address demonstrated effluent toxicity based on newly available information, or to implement any EPA-approved new State water quality standards applicable to effluent toxicity.

7. This Order may be reopened to incorporate appropriate biosolids requirements if the State Water Resources Control Board and the Regional Water Quality Control Board are given the authority to implement regulations contained in 40 CFR 503.

I, Gerard J. Thibeault, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on September 6, 2002.

_____

Gerard J. Thibeault
Executive Officer

California Regional Water Quality Control Board
Santa Ana Region

MONITORING AND REPORTING PROGRAM NO. R8-2002-0024
NPDES NO. CA8000316

for the

Western Riverside County Regional Wastewater Authority
Western Riverside County Regional Wastewater Treatment Plant
Riverside County

California Regional Water Quality Control Board
Santa Ana Region

Western Riverside County Regional Wastewater Authority
Western Riverside County Regional Wastewater Treatment Plant

MONITORING AND REPORTING PROGRAM NO. R8-2002-0024
NPDES NO. CA 8000316

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California Regional Water Quality Control Board
Santa Ana Region

Monitoring and Reporting Program (M&RP) No. R8-2002-0024
NPDES No. CA8000316
for the

Western Riverside County Regional Wastewater Authority
Western Riverside County Regional Wastewater Treatment Plant
Riverside County

A. MONITORING AND REPORTING REQUIREMENTS:

1. All sampling and sample preservation shall be in accordance with the current edition of *"Standard Methods for the Examination of Water and Wastewater*" (American Public Health Association).

2. All laboratory analyses shall be performed in accordance with test procedures under 40 CFR 136 (latest edition) "*Guidelines Establishing Test Procedures for the Analysis of Pollutants*," promulgated by the United States Environmental Protection Agency (EPA), unless otherwise specified in this monitoring and reporting program (M&RP). In addition, the Regional Board and/or EPA, at their discretion, may specify test methods which are more sensitive than those specified in 40 CFR 136. Laboratory analysis for biosolids shall be in accordance with 40 CFR 503.8.

3. Chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services or EPA or at laboratories approved by the Regional Board's Executive Officer.

4. In conformance with federal regulations 40 CFR 122.45(c), analyses to determine compliance with the effluent limitations for metals shall be conducted using the total recoverable method. For Chromium (VI), the dissolved method in conformance with 40 CFR 136 may be used to measure compliance with the Chromium (VI) limitation.

5. For effluent and ambient receiving water monitoring:

    a. Until March 1, 2003, the discharger shall require its testing laboratory analyzing priority pollutants to quantify each constituent at least down to the Practical Quantitation Levels[1] specified in Attachment "A". Any internal quality control data associated with the sample must be reported when requested by the Executive Officer. The Regional Board will reject the quantified laboratory data if quality control data is unavailable or unacceptable.

[1] *PQL is the lowest concentration of a substance which can be determined within ± 20 percent of the true concentration by 75 percent of the analytical laboratories tested in a performance evaluation study. Alternatively, if performance data are not available, the PQL is the method detection limit (MDL) x 5 for carcinogens and MDL x 10 for noncarcinogens.*

b. By March 1, 2003, the discharger shall require its testing laboratory to calibrate the analytical system down to the minimum levels (MLs)[2] specified in Attachment "B" for priority pollutants with effluent limitations in this Order, unless an alternative minimum level is approved by the Regional Board's Executive Officer. The March 1, 2003, date may be extended by the Executive Officer provided that good cause is demonstrated by the discharger and provided that any such extension is as short as possible. Any internal quality control data associated with the sample must be reported when requested by the Executive Officer. The Regional Board will reject the quantified laboratory data if quality control data is unavailable or unacceptable.

c. For receiving water monitoring and for those priority pollutants without effluent limitations, the discharger shall require its testing laboratory to quantify constituent concentrations to the lowest achievable MDL as determined by the procedure found in 40 CFR 136 (revised as of May 14, 1999). In situations where the most stringent applicable receiving water objective (freshwater or human health (consumption of organisms only), as specified for that pollutant in 40 CFR 131.38[3]) is below the minimum level value specified in Attachment "B" and the discharger cannot achieve an MDL value for that pollutant below the ML value, the discharger shall submit justification why a lower MDL value cannot be achieved. Justification shall be submitted together with monthly monitoring reports.

d. The discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

(1) For monitoring data submitted through March 1, 2003:

(a) Sample results greater than or equal to the PQL shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).

(b) Sample results less than the PQL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or "DNQ." The estimated chemical concentration of the sample shall also be reported.

(c) Sample results not detected above the laboratory's MDL shall be reported as "not detected" or "ND."

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2 *Minimum level is the concentration at which the entire analytical system must give a recognizable signal and acceptable point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.*

3 *See Federal Register/ Vol. 65, No. 97 / Thursday, May 18, 2000 / Rules and Regulations.*

(2) For monitoring data submitted after March 1, 2003[4]:

(a) Sample results greater than or equal to the reported ML shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).

(b) Sample results less than the reported ML, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or "DNQ." The estimated chemical concentration of the sample shall also be reported.

(c) Sample results not detected above the laboratory's MDL shall be reported as "not detected" or "ND."

e. The discharger shall submit to the Regional Board reports necessary to determine compliance with effluent limitations for priority pollutants in this Order and shall follow the chemical nomenclature and sequential order of constituents shown in Attachment "C" - Priority Pollutant Lists. The discharger shall report with each sample result:

(1) The PQL or ML achieved by the testing laboratory; and

(2) The laboratory's current Method Detection Limit (MDL)[5], as determined by the procedure found in 40 CFR 136 (revised as of May 14, 1999).

6. For non-priority pollutants monitoring, all analytical data shall be reported with identification of practical quantitation levels and with method detection limits, as determined by the procedure found in 40 CFR 136 (revised as of May 14, 1999).

7. The discharger shall have, and implement an acceptable written quality assurance (QA) plan for laboratory analyses. Duplicate chemical analyses must be conducted on a minimum of ten percent (10%) of the samples, or at least one sample per month, whichever is greater. A similar frequency shall be maintained for analyzing spiked samples. When requested by the Regional Board or EPA, the discharger will participate in the NPDES discharge monitoring report QA performance study.

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4 *If an extension from this date is authorized by the Executive Officer for one or more constituents, then the requirements specified in paragraph A.5.d.1) above, shall apply to that constituent(s) until the extended date specified by the Executive Officer. After that date, the requirements specified in paragraph A.5.d.2) shall apply.*

5 *MDL is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyze concentration is greater than zero, as defined in 40 CFR 136, Appendix B, revised as of May 14, 1999.*

8. Discharge monitoring data shall be submitted in a format acceptable by the Regional Board and EPA. Specific reporting format may include preprinted forms and/or electronic media. The results of all monitoring required by this Order shall be reported to the Regional Board, and shall be submitted in such a format as to allow direct comparison with the limitations and requirements of this Order. The hard copy of submitted reports shall serve as the official submittal.

9. The discharger shall tabulate the monitoring data to clearly illustrate compliance and/or noncompliance with the requirements of the Order.

10. The discharger shall multiply each measured or estimated congener concentration by its respective toxic equivalency factor (TEF) as shown below and report the sum of these values. The discharger shall use the U.S. EPA approved test method 1613 for dioxins and furans.

Toxic Equivalency Factors for 2,3,7, 8-TCDD Equivalents	
Congener	TEF
2,3,7,8-TetraCDD	1
1,2,3,7,8-PentaCDD	1.0
1,2,3,4,7,8-HexaCDD	0.1
1,2,3,6,7,8-HexaCDD	0.1
1,2,3,7,8,9-HexaCDD	0.1
1,2,3,4,6,7,8-HeptaCDD	0.01
OctaCDD	0.0001
2,3,7,8-TetraCDF	0.1
1,2,3,7,8-PentaCDF	0.05
2,3,4,7,8-PentaCDF	0.5
1,2,3,4,7,8-HexaCDF	0.1
1,2,3,6,7,8-HexaCDF	0.1
1,2,3,7,8,9-HexaCDF	0.1
2,3,4,6,7,8-HexaCDF	0.1
1,2,3,4,6,7,8-HeptaCDF	0.01
1,2,3,4,7,8,9-HeptaCDF	0.01
OctaCDF	0.0001

11. For every item of monitoring data where the requirements are not met, the monitoring report shall include a statement discussing the reasons for noncompliance, and of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time, and an estimate of the date when the discharger will be in compliance. The discharger shall notify the Regional Board by letter when compliance with the time schedule has been achieved.

12. The monthly reports for June and December shall include a roster of plant personnel, including job titles, duties, and level of State certification for each individual.

13. By April 1 of each year, the discharger shall submit an annual report to the Regional Board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the discharger shall discuss the compliance record and the corrective actions taken or planned, which may be needed to bring the discharge into full compliance with the waste discharge requirements. The annual report shall include a summary of the quality assurance (QA) activities for the previous year.

14. The discharger shall assure that records of all monitoring information are maintained and accessible for a period of at least five years from the date of the sample, report, or application. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or by the request of the Regional Board at any time. Records of monitoring information shall include:

    a. The date, exact place, and time of sampling or measurements;

    b. The individual(s) who performed the sampling, and/or measurements;

    c. The date(s) analyses were performed;

    d. The laboratory which performed the analyses;

    e. The individual(s) who performed the analyses;

    f. The analytical techniques or methods used;

    g. All sampling and analytical results;

    h. All monitoring equipment calibration and maintenance records;

    i. All original strip charts from continuous monitoring devices;

    j. All data used to complete the application for this Order;

    k. Copies of all reports required by this Order; and

    l. Electronic data and information generated by the Supervisory Control And Data Acquisition (SCADA) System.

15. The flow measurement system shall be calibrated at least once per year or more frequently, to ensure continued accuracy.

16. All monitoring instruments and devices used by the discharger to fulfill the prescribed monitoring program shall be properly maintained and calibrated as necessary to ensure their continued accuracy. In the event that continuous monitoring equipment is out of service for greater than a 24 hour period, the discharger shall obtain at least a representative grab sample each day the equipment is out of service. The discharger shall correct the cause(s) of failure of the continuous monitoring equipment as soon as practicable. In its monitoring report, the discharger shall specify the period(s) during which the equipment was out of service and if the problem has not been corrected, shall identify the steps which the discharger is taking or proposes to take to bring the equipment back into service and the schedule for these actions.

17. Monitoring and reporting shall be in accordance with the following:

    a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

    b. The monitoring and reporting of influent, effluent, and sludge shall be done, at a minimum, on an annual basis, and more frequently, depending on the nature and effect of the sewage sludge use or disposal practice, or as specified in this Order.

    c. All monitoring, including that of sludge use or disposal, must be conducted according to test procedures approved under 40 CFR 136 or as specified in this Order.

    d. The results of any analysis of samples taken more frequently than required at the locations specified in this M&RP shall be reported to the Regional Board.

    e. A "grab" sample is defined as any individual sample collected in less than 15 minutes.

    f. A composite sample is defined as a combination of no fewer than eight individual grab samples obtained over the specified sampling period. The volume of each individual grab sample shall be proportional to the discharge flow rate at the time of sampling or, the number of equal volume samples shall be proportional to the flow over the sampling period. The compositing period shall equal the specific sampling period, or 24 hours, if no period is specified.

    g. Daily samples shall be collected on each day of the week.

    h. Monthly samples shall be collected on any representative day of each month.

    i. Quarterly samples shall be collected in January, April, July, and October.

    j. Semi-annual samples shall be collected in January and July.

    k. Annual samples shall be collected in accordance with the following schedule:

Year	Annual samples
2002	October
2003	January
2004	April
2005	July
2006	October
2007	January

18. All reports shall be signed by either a principal executive officer or ranking elected or appointed official or a duly authorized representative of a principal executive officer or ranking elected or appointed official. A duly authorized representative of a principal executive officer or ranking elected or appointed official may sign the reports only if;

    a. The authorization is made in writing by a principal executive officer or ranking elected or appointed official,

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position), and

c. The written authorization is submitted to the Regional Board.

Each person signing a report required by this Order or other information requested by the Regional Board shall make the following certification:

" *I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate*[6]*, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations*."

19. The discharger, unless otherwise specified elsewhere in this M&RP, shall deliver a copy of each monitoring report in the appropriate format to:

a. California Regional Water Quality Control Board
Santa Ana Region
3737 Main Street, Suite 500
Riverside, CA 92501-3348, and

b. NPDES/DMR
CWA Compliance Office, WTR-7
Water Division
75 Hawthorne Street
San Francisco, CA 94105

B. INFLUENT MONITORING:

1. Sampling stations shall be established and located upstream of any in-plant return flows and where a representative sample of the influents to the treatment facility can be obtained. The date and time of sampling (as appropriate) shall be reported with the analytical values determined.

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6 *For the purposes of this certification the term "accurate" refers to the veracity of the information submittal and not to the performance characteristics of the measurement system.*

2. The following shall constitute the influent monitoring program:

Constituent	Units	Type of Sample	Minimum Frequency of Sampling & Analysis
Flow	mgd	Recorder/ Totalizer	Continuous
Specific Conductance	μmhos/cm	Recorder	"
pH	pH units	"	"
TOC	mg/l	Composite	Daily
BOD_5	"	"	"
Total Suspended Solids	"	"	"
Ammonia-Nitrogen	"	Grab	Monthly
Chloride	"	Composite	"
Sodium	"	"	"
Sulfate	"	"	"
Total Hardness	"	"	"
Total Inorganic Nitrogen	"	"	"
Total Dissolved Solids	"	"	Monthly
Boron	"	"	Quarterly
Barium	"	"	"
Fluoride	mg/l	Composite	
Cyanide (Free)	μg/l	Grab	"
Arsenic	"	Composite	"
Benzene	"	"	"
Bromodichloromethane	"	"	"
Cadmium	"	"	"
Chloroform	"	"	"
Copper	"	"	"
Dibromochloromethane	"	"	"
Hexachlorocyclohexane-gamma	"	"	"
Iron	"	"	"
Lead	"	"	"
Manganese	"	"	"
Mercury	"	"	"
Nickel	"	"	"
Phenol	"	"	"
Selenium	"	"	"
Silver	"	"	"
Total Chromium	"	"	"
Zinc	"	Composite	Quarterly

Constituent	Units	Type of Sample	Minimum Frequency of Sampling & Analysis
Volatile organic portion of EPA Priority Pollutants[7] (See Attachment "C")	µg/l	Grab	Annually
Remaining EPA Priority Pollutants[8] (See Attachment "C")	µg/l	Composite	Annually

C. EFFLUENT MONITORING:

1. Sampling station(s) shall be established at the point(s) of discharge and shall be located where representative samples of the effluent can be obtained. If chlorine is ever used for effluent treatment, then residual chlorine shall be monitored at the sampling station.

2. The following shall constitute the effluent monitoring program for the discharge of tertiary treated wastewater into Santa Ana River (Discharge Serial 001):

Constituent	Units	Type of Sample	Minimum Frequency of Sampling & Analysis
Flow	MGD[9]	Recorder/Totalizer	Continuous
Specific Conductance	µmhos/cm	Recorder	"
pH	pH units	"	"
Turbidity Four-hour Results Daily Average Daily 95th Percentile	NTU[10]	Recorder	See note (1), below
Coliform Organisms	MPN/100mL[11]	Grab	Daily (see note (2), below)
TOC	mg/l	Composite	Daily
BOD_5	mg/l	Composite	Daily
Total Suspended Solids	"	Composite	"
Ammonia-Nitrogen	"	Grab	Bi-Weekly
Temperature	°C	Grab	Weekly

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7 *EPA priority pollutants are those remaining volatile organic pollutants listed in Attachment "C" which are not specifically listed in this monitoring program table.*

8 *Remaining EPA priority pollutants are those pollutants listed in Attachment "C" which are not volatile organics and pollutants not specifically listed in this monitoring program table.*

9 *MGD = Million gallons per day*

10 *NTU = Nephelometric Turbidity Units.*

11 *MPN/100mL = Most Probable Number per 100 milliliters*

Constituent	Units	Type of Sample	Minimum Frequency of Sampling & Analysis
Toxicity Monitoring	----	(See Section D., Below)	(See Section D., Below)
Bicarbonate	mg/l	Composite	Monthly
Boron	mg/l	Composite	"
Calcium	"	"	"
Carbonate	"	"	"
Chloride	mg/l	Composite	"
Fluoride	"	"	"
Magnesium	"	"	"
Nitrate	"	"	"
Sodium	"	"	"
Sulfate	"	"	"
Total Dissolved Solids	"	"	"
Total Hardness	"	"	"
Total Inorganic Nitrogen	"	"	"
Cadmium	µg/l	"	"
Copper	"	"	"
Lead	"	"	"
Mercury	"	"	"
Selenium	"	"	"
Cyanide (Free)	"	Grab	"
Hexachlorocyclohexane -gamma	"	Grab	Monthly (see C.5., below)
Bis (2-ethylhexyl) phthalate	"	"	"
Endusulfan I	"	"	"
4,4'-DDT	"	"	"
Tetrachloroethylene (PCE)	"	"	"
Total Trihalomethanes[12]	µg/l	Composite	Quarterly (see C.3., below)
Arsenic	"	"	"
Barium	"	"	"
Cobalt	"	"	"
Iron	mg/l	"	"
Manganese	"	"	"
Chromium (VI) or Total Chromium	µg/l	"	"
Nickel	"	"	"
Silver	"	"	"
Zinc	mg/l	Composite	"
Acrylonitrile	µg/l	"	"

[12] *Total Trihalomethanes shall mean the sum of Bromoform, Chloroform, Dibromochloromethane, and Bromodichloromethane.*

Constituent	Units	Type of Sample	Minimum Frequency of Sampling & Analysis
Benzene	"	"	"
Carbon Tetrachloride	µg/l	Composite	Quarterly (see C.3., below)
1,1-Dichloroethylene	"	"	"
Pentachlorophenol	"	"	"
Phenol	"	"	"
2,4,6-Trichlorophenol	"	"	"
Benzidine	"	"	"
Benzo (a) anthracene	"	"	"
Benzo (a) pyrene	"	"	"
Benzo (b) fluoranthene	"	"	"
Benzo (k) fluorantene	"	"	"
Bis (2-Chloroethyl) ether	"	"	"
Chrysene	"	"	"
Dibenzo (a,h) anthracene	"	"	"
3,3-Dichlorobenzidine	"	"	"
2,4-Dinitrotoluene	"	"	"
1,2-Diphenylhydrazine	"	"	"
Hexachlorobenzene	"	"	"
Hexachloroethane	"	"	"
Indeno (1,2,3-cd) pyrene	"	"	"
N-Nitrosodimethylamine	"	"	"
N-Nitrosodi-N-propylamine	"	"	"
Aldrin	"	"	"
Alpha BHC	"	"	"
Beta BHC	"	"	"
Chlordane	"	"	"
4,4'-DDE	"	"	"
4,4'-DDD	"	"	"
Dieldrin	"	"	"
Endrin	"	"	"
Heptachlor	"	"	"
Heptachlor Epoxide	"	"	"
PCB 1016	"	"	"
PCB 1221	"	"	"
PCB 1232	"	"	"
PCB 1242	"	"	"
PCB 1248	"	"	"
PCB 1254	"	"	"
PCB 1260	"	"	"
Toxaphene	µg/l	Composite	Quarterly (see C.3., below)

Constituent	Units	Type of Sample	Minimum Frequency of Sampling & Analysis
2,3,7,8-TetraCDD	ρg/l (parts-per-quadrillion)	Composite	Semi-annual (see A.10 & A.17.j.)
1,2,3,7,8-PentaCDD	"	"	"
1,2,3,4,7,8-HexaCDD	"	"	"
1,2,3,6,7,8-HexaCDD	"	"	"
1,2,3,7,8,9-HexaCDD	"	"	"
1,2,3,4,6,7,8-HeptaCDD	"	"	"
OctaCDD	"	"	"
2,3,7,8-TetraCDF	"	"	"
1,2,3,7,8-PentaCDF	"	"	"
2,3,4,7,8-PentaCDF	"	"	"
1,2,3,4,7,8-HexaCDF	"	"	"
1,2,3,6,7,8-HexaCDF	"	"	"
1,2,3,7,8,9-HexaCDF	"	"	"
2,3,4,6,7,8-HexaCDF	"	"	"
1,2,3,4,6,7,8-HeptaCDF	"	"	"
1,2,3,4,7,8,9-HeptaCDF	"	"	"
OctaCDF	ρg/l (parts-per-quadrillion)	Composite	Semi-annual (see A.10 & A.17.j.)
Volatile organic portion of EPA Priority Pollutants[13] (See Attachment "C")	µg/l	Grab	Annually (see C.4., below)
Remaining EPA Priority Pollutants[14] (See Attachment "C")	µg/l	Composite	Annually (see C.4., below)

Notes:

(1) Turbidity analysis shall be continuous, performed by a continuous recording turbidimeter. Compliance with the daily average operating filter effluent turbidity shall be determined by averaging the levels of recorded turbidity taken at a minimum of four-hour intervals over a 24-hour period. The results of the daily average turbidity determinations shall be reported monthly. Turbidity measurements shall be taken, immediately before disinfection.

(2) Samples for total coliform bacteria shall be collected at least daily. Samples shall be taken from the disinfected effluent.

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13 *EPA priority pollutants are those remaining volatile organic pollutants listed in Attachment "C" which are not specifically listed in this monitoring program table.*

14 *Remaining EPA priority pollutants are those pollutants listed in Attachment "C" which are not volatile organics and pollutants not specifically listed in this monitoring program table.*

3. The monitoring frequency for those priority pollutants that are detected during the required quarterly monitoring at a concentration greater than eighty percent of the most stringent applicable receiving water objective (freshwater or human health (consumption of organisms only) specified for that pollutant[15] in 40 CFR 131.38[16]) shall be accelerated to monthly. To return to the monitoring frequency specified, the discharger shall request and receive approval from the Regional Board's Executive Officer or designee.

4. The monitoring frequency for those priority pollutants that are detected during the required annual monitoring at a concentration greater than eighty percent of the most stringent applicable receiving water objective (freshwater or human health (consumption of organisms only) as specified for that pollutant[15] in 40 CFR 131.38[16]) shall be accelerated to quarterly for one year following detection. To return to the monitoring frequency specified, the discharger shall request and receive approval from the Regional Board's Executive Officer or designee.

5. The monitoring frequency for this priority pollutant shall be reduced to quarterly if after one year of monitoring there are no detected values at a concentration greater than eighty percent of the most stringent applicable receiving water objective (freshwater or human health (consumption of organisms only) as specified for that pollutant[15] in 40 CFR 131.38[16]). To reduce the monitoring frequency to quarterly, the discharger shall request and receive approval from the Regional Board's Executive Officer or designee.

D. TOXICITY MONITORING REQUIREMENTS:

1. The discharger shall conduct critical life stage chronic toxicity testing in accordance with Method 1002.0 - Survival and Reproduction test for water flea, *Ceriodaphnia dubia* as specified in "Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms", third edition, Environmental Monitoring Systems Laboratory, U.S. Environmental Protection Agency 1994, Cincinnati, Ohio (July 1994, EPA/600/4-91/002).

2. The discharger shall establish procedures to ensure that the toxicity testing laboratory notifies the discharger of the results of toxicity testing by the end of the next business day following the completion of such tests.

3. A minimum of one monthly chronic toxicity test shall be conducted on representative grab samples.

4. The discharger shall increase the frequency of chronic toxicity testing to, at a minimum of every two weeks whenever any test result exceeds 1.0 TUc. The first test under the accelerated schedule shall be conducted within two weeks of receiving notice of the test which exceeds 1.0 TUc, and every two weeks thereafter. The discharger may resume the regular test schedule when two consecutive chronic toxicity tests result in 1.0 TUc, or when the results of the Initial Investigation Reduction Evaluation conducted by the discharger have adequately addressed the identified toxicity problem.

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15 *For those priority pollutants without specified criteria values, accelerated monitoring is not required.*

16 *See Federal Register/ Vol. 65, No. 97 / Thursday, May 18, 2000 / Rules and Regulations.*

5. The presence of chronic toxicity shall be estimated as specified in Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms. Third Edition. EPA/600/4-91/002.

6. Results for both survival and reproduction endpoints shall be reported in TUc, where TUc = 100/NOEC or 100/ICp or ECp (p is the percent effluent). The no observed effect concentration (NOEC) is the highest concentration of toxicant to which organisms are exposed in a chronic test, that causes no observable adverse effect on the tests organisms (e.g., the highest concentration of toxicant to which the values for the observed responses are not statistically significant different from the controls). The inhibition concentration (IC) is a point estimate of the toxicant concentration that causes a given percent reduction in a non-quantal biological measurement (e.g., reproduction or growth) calculated from a continuous model (the EPA Interpolation Method). The effective concentration (EC) is a point estimate of the toxicant concentration that would cause a given percent reduction in quantal biological measurement (e.g., larval development, survival) calculated from a continuous model (e.g., probit).

7. Additional Testing Requirements.

    a. A series of at least five dilutions and a control will be tested. Five dilutions of the series shall be within 60% to 100% effluent concentration.

    b. If organisms are not cultured in-house, concurrent testing with reference toxicants shall be conducted. Where organisms are cultured in-house, monthly reference toxicant testing is sufficient. Reference toxicants shall also be conducted using the same test conditions as the effluent toxicity test (e.g., same test duration, etc).

    c. If either of the reference toxicant test or the effluent tests do not meet all test acceptability criteria as specified in the manual[17], then the discharger must re-sample and re-test within 14 days or as soon as the discharger receives notification of failed tests.

    d. Control and dilution water should be receiving water or lab water. If the dilution water used is different from the culture water, a second control, using culture water shall also be used.

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17 *Refers to USEPA Manual "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms. Third Edition. EPA/600/4-91/002."*

8. Quality Assurance/Control:

   a. A quality assurance/quality control (QA/QC) program shall be instituted to verify the results of the effluent toxicity monitoring program. The QA/QC program shall include but shall not be limited to the following: (1) Selection of an independent testing laboratory; (2) Approval by the Regional Board's Executive Officer or Executive Officer's designee of the independent testing laboratory; (3) Once during the year, the discharger shall split samples with the independent laboratory for conducting chronic toxicity testing; (4) Results from the independent laboratory shall be submitted to the Regional Board and the discharger for evaluation; (5) The discharger shall review the test acceptability criteria in accordance with the EPA test protocols, EPA/600/4-91/002.

   b. Results from the independent laboratory of the annual QA/QC split samples are to be used for Quality Assurance/Quality Control (QA/QC) purposes only and not for purposes of determining compliance with other requirements of this Order.

9. The use of alternative methods for measuring chronic toxicity may be considered by the Executive Officer on a case–by-case basis. The use of a different test species, in lieu of conducting the required test species may be considered/approved by the Executive Officer on a case-by case basis upon submittal of the documentation supporting discharger's determination that a different species is more sensitive and appropriate.

10. Reporting: Results of all toxicity testing conducted within the month following the reporting period shall be submitted monthly in accordance with "Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms", third edition, Environmental Monitoring Systems Laboratory, U.S. Environmental Protection Agency 1994, Cincinnati, Ohio (July 1994, EPA/600/4-91/002). The report shall include a determination of the median value of all chronic toxicity testing results conducted during the two previous months.

11. Whenever an Initial Investigation Reduction Evaluation is conducted, the results of the evaluation shall be submitted upon completion. In addition, monthly status reports shall be submitted as part of the discharger's monitoring report.

E. BIOSOLIDS MONITORING:

1. Biosolids monitoring shall be conducted as follows:

Biosolids Monitoring	Units	Type of Sample	Minimum Frequency of Sampling & Analysis
Priority Pollutants	mg/kg	Grab	Quarterly
Moisture Content (% solid)	mg/kg	Grab	Quarterly

2. The discharger shall maintain a permanent log of solids hauled away from the treatment facilities for use/disposal elsewhere, including the date hauled, the volume or weight (in dry tons), type (screening, grit, raw sludge, biosolids), and destination. This information shall be reported quarterly.

F. RECEIVING WATER MONITORING:

1. The following receiving water stations shall be monitored for the indicated constituents whenever there is a discharge to the Santa Ana River:

Station A: Santa Ana River within 100 feet upstream of the point of discharge.
Station B: Santa Ana River within 500 feet downstream of the point of discharge.

Constituent	Units	Type of Sample	Minimum Frequency of Sampling & Analysis
Dissolved Oxygen	mg/l	Grab	Weekly
Temperature	^{0}C	"	"

A check for the presence of any color changes, foam, deposition or material, or odor in the receiving water due to the discharge shall be made weekly at Station B.

2. At station B, all the priority pollutants listed in Attachment "C" shall be monitored quarterly and reported by the last day of the month following the monitoring period.

3. Unless otherwise directed by the Regional Board Executive Officer, the discharger shall implement the approved plan for the annual sampling and testing of mercury levels in fish flesh samples collected from the Santa Ana River (see Section G.2 of the Order). The frequency of monitoring and submission of reports shall be as stipulated in the approved plan.

G. WATER SUPPLY MONITORING:

1. In June of each year, a sample of each source of the water supplied to the sewered area shall be obtained and analyzed for the following constituents:

Chloride	Sulfate
Sodium	Total Dissolved Solids
Boron	Fluoride
pH	Total Hardness
Specific Conductance	

2. All of the above constituents shall be expressed in "mg/l" except specific conductance and pH, which shall be expressed in "micromhos/cm" and "pH units," respectively.

3. Monthly reports shall be submitted stating the quality of water supplied to the sewered area for constituents specified in Section G.1., above.

H. STORM WATER MONITORING:

The discharger shall comply with Attachment "D" – Storm Water Monitoring and Reporting Requirements.

I. SALT OFFSET PROGRAM MONITORING AND REPORTING:

The discharger shall submit annual salt removal sums from Arlington Basin Desalter demonstrating that the offset is occurring and is being complied with.

J. PRETREATMENT MONITORING AND REPORTING:

1. The discharger shall submit to the Regional Board, the State Water Resources Control Board and the EPA Region 9, a quarterly compliance status report. The quarterly compliance status reports shall cover the periods January 1 - March 31, April 1 - June 30, July 1 - September 30, and October 1 -December 31. Each report shall be submitted by the end of the month following the quarter, except that the report for October 1 - December 31 may be included in the annual report. This quarterly reporting requirement shall commence for the first full quarter following issuance of this Order. The reports shall identify:

    a. All significant industrial users (SIUs) which violated any standards or reporting requirements during that quarter;

    b. The violations committed (distinguish between categorical and local limits);

    c. The enforcement actions undertaken; and

    d. The status of active enforcement actions from previous periods, including closeouts (facilities under previous enforcement actions which attained compliance during the quarter).

2. Annually, the discharger shall submit a report to the Regional Board, the State Water Resources Control Board and the EPA Region 9 describing the pretreatment activities within the service area during the previous year. In the event that any control authority within the service area is not in compliance with any conditions or requirements of this Order or their approved pretreatment program (such as due to industrial user discharges, inter-jurisdictional agency agreement implementation issues, or other causes) then the discharger shall also include the reasons for non-compliance and state how and when the discharger and the control authority shall comply with such conditions and requirements. This annual report shall cover operations from January 1 through December 31 and is due on September 30 of each year. The report shall contain, but not be limited to, the following information:

a. A summary of analytical results from representative, flow-proportioned, 24-hour composite sampling of the POTW's influent and effluent wastewaters for those pollutants which are known or suspected to be discharged by industrial users (IUs) as identified by EPA under Section 307(a) of the CWA. The summary will include the result of annual full priority pollutant scan, with quarterly samples analyzed only for those pollutants[18] detected in the full scan. The discharger shall also provide any influent or effluent monitoring data for non-priority pollutants which the discharger believes may be causing or contributing to Interference, Pass Through or adversely impacting sludge quality. Sampling and analysis shall be performed in accordance with the techniques prescribed in 40 CFR 136 and amendments thereto.

b. A discussion of any upset, interference, or pass-through incidents at the treatment plant (if any), which the discharger knows or suspects were caused by IUs of the POTW system. The discussion shall include the following:

(1) The reasons why the incidents occurred, the corrective actions taken, and, if known, the name and address of the IU(s) responsible.

(2) A review of the applicable pollutant limitations to determine whether any additional limitations, or changes to existing requirements, may be necessary to prevent pass through, interference or noncompliance with sludge disposal requirements.

c. A complete and updated list of the discharger's significant industrial users (SIUs), including names, Standard Industrial Classification (SIC) code(s) and addresses, and a list of any SIU deletions and/or additions. The discharger shall provide a brief explanation for each deletion. The SIU list shall identify the SIUs subject to Federal Categorical Standards by specifying which set(s) of standards are applicable to each SIU. The list shall also indicate which SIUs are subject to local limitations more stringent than Federal Categorical Standards and those which are not subject to local limits.

d. A list or table characterizing the industrial compliance status of each SIU, including:

(1) SIU name;

(2) Industrial category;

(3) The type (processes) of wastewater treatment in place;

(4) Number of samples taken by the POTW during the year;

(5) Number of samples taken by the SIU during the year;

(6) Whether all needed certifications (if allowed) were provided by SIUs which have limits for total toxic organics;

(7) Federal and Regional Standards violated during the year, reported separately;

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[18] *The discharger is not required to analyze for asbestos*.

(8) Whether the SIU at any time in the year was in Significant Noncompliance (SNC)[19], as defined by 40 CFR 403.12 (f)(2)(vii); and

(9) A summary of enforcement actions against the SIU taken during the year, including the type of action, final compliance date, and amount of fines assessed/collected (if any). Proposed actions, if known, should be included.

(10) Number of inspections conducted at each SIU during the year.

e. A compliance summary table which includes:

(1) SIU's which were in SNC at any time during the year;

(2) The total number of SIUs which are in SNC with pretreatment compliance schedules during the year;

(3) The total number of notices of violation and administrative orders issued against SIUs during the year;

(4) The total number of civil and criminal judicial actions filed against SIUs during the year;

(5) The number of SIUs which were published as being in SNC during the year; and

(6) The number of IUs from which penalties were collected during the year.

f. A short description of any significant changes in operating the pretreatment program which differ from the previous year including, but not limited to changes concerning:

(1) the program's administrative structure;

(2) local industrial discharge limitations;

(3) monitoring program or monitoring frequencies;

(4) legal authority or enforcement policy;

(5) funding mechanisms; and

(6) resource requirements and/or staffing levels.

g. A summary of the annual pretreatment budget, including the cost of pretreatment program functions and equipment purchases.

h. A summary of public participation activities to involve and inform the public.

i. A description of any changes in sludge disposal methods and a discussion of any concerns not described elsewhere in the report.

j. The number of industrial users that the discharger has notified regarding Baseline Monitoring Reports and the number of industrial user responses.

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19 *SNC is determined at the beginning of each quarter based on data of the previous six months.*

k. A summary of activities conducted implementing and enforcing inter-jurisdictional agreements between the contracting agencies.

3. The discharger shall submit the quarterly compliance status reports and the annual pretreatment report to EPA Region 9, the State Board and the Regional Board at the following addresses:

a. Regional Administrator
U.S. Environmental Protection Agency
Region 9 - Attention WTR-7
75 Hawthorne Street
San Francisco, CA 94105

b. State Water Resources Control Board
Division of Water Quality, Pretreatment Unit
P.O. Box 944213
Sacramento, CA 94244-2130

c. Gerard J. Thibeault, Executive Officer
California Regional Water Quality Control Board
Santa Ana Region
3737 Main Street, Suite 500
Riverside, CA 92501-3348

K. REPORTING:

1. Monitoring reports shall be submitted by the dates in the following schedule:

Report	Reporting	Report Due Date
Influent and effluent constituents	Monthly	By the 30th day of the month following the monitoring period
Receiving Water Monitoring	"	"
Toxicity Testing for discharges to Santa Ana River only	See Section D.10., above	"
Biosolids Monitoring	Quarterly	"
Quarterly Pretreatment Compliance Status Reports (see Section J.1., above)	Quarterly	"
Annual Priority Pollutants Analysis	Annually	By the 30th day of the month following the monitoring period
Fish Flesh Testing	"	March 31, each year
Annual Water Supply Parameters from each source	"	Fourth Monday of October
Annual Pretreatment Reporting (see Section J.2., above)	"	March 31, each year
Storm Water Monitoring Reports	Annually	July 1, each year
Salt Offset Reporting	"	March 31, each year
Annual Monitoring Report (see Section A.13., above)	Annually	March 31, each year

2. The following reports shall also be submitted by the dates indicated:

REQUIRED REPORTS OF ORDER NO. R8-2002-0024	
Report	Report Due Date
Report per Section F.2.	December 1, 2002
Report per Section F.3.	December 1, 2002
Report per Section F.4.	December 1, 2002
Report per Section F.5.	December 1, 2002
Report per Section F.6.	December 1, 2002
Report per Section F.7.	December 1, 2002
Report per Section F.8.	See Section H.8. of the Order
Report per Section F.9.	See Section H.9. of the Order

REQUIRED REPORTS OF ORDER NO. R8-2002-0024	
Report	Report Due Date
Report per Section F.10.	See Section H.10. of the Order
Report per Section F.11.	See Section H.11. of the Order
Report of Waste Discharge per Section F.12.	180 days before any plant changes (see Section H.13 of the Order)
Non-compliance Reporting per Section F.13.	Within 24-hours followed by a written report within 5-days (see Section F.13. of the Order)
This table attempts to summarize all of the special reports that are required to be submitted in accordance with Order No. R8-2002-0024; however, the omission of a report from this table does not absolve the discharger from the requirement to submit that report.	

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Gerard J. Thibeault
Executive Officer

September 6, 2002

PRACTICAL QUANTITATION LEVELS FOR COMPLIANCE DETERMINATION

	Constituent	RL µg/l	Analysis Method
1	Arsenic	7.5	GF/AA
2	Barium	20	ICP/GFAA
3	Cadmium	15	ICP
4	Chromium (VI)	15.0	ICP
5	Cobalt	10.0	GF/AA
6	Copper	19.0	GF/ICP
7	Cyanide	50.0	335.2/335.3
8	Iron	100.0	ICP
9	Lead	26.0	GF/AA
10	Manganese	20.0	ICP
11	Mercury	0.5	CV/AA
12	Nickel	50.0	ICP
13	Selenium	14.0	GF/HYDRIDE GENERATION
14	Silver	16.0	ICP
15	Zinc	20	ICP
16	1,2 - Dichlorobenzene	5.0	601/602/624
17	1,3 - Dichlorobenzene	5.0	601
18	1,4 - Dichlorobenzene	5.0	601
18	2,4 - Dichlorophenol	10.0	625/604
20	4 - Chloro -3-methylphenol	10.0	625/604
21	Aldrin	0.04	608
22	Benzene	1.0	602/624
23	Chlordane	0.30	608
24	Chloroform	5.0	601/624
25	DDT	0.10	608
26	Dichloromethane	5.0	601/624
27	Dieldrin	0.10	608
28	Fluorantene	10.0	625/610
29	Endosulfan	0.50	608
30	Endrin	0.10	608
31	Halomethanes	5.0	601/624
32	Heptachlor	0.03	608
33	Hepthachlor Epoxide	0.05	608
34	Hexachlorobenzene	10.0	625
35	Hexachlorocyclohexane		
	Alpha	0.03	608
	Beta	0.03	608
	Gamma	0.03	608
36	PAH's	10.0	625/610
37	PCB	1.0	608
38	Pentachlorophenol	10.0	625/604
39	Phenol	10.0	625/604
40	TCDD Equivalent	0.05	8280
41	Toluene	1.0	602/625
42	Toxaphene	2.0	608
43	Tributyltin	0.02	GC
44	2,4,6-Trichlorophenol	10.0	625/604

MINIMUM LEVELS IN PPB (µg/l)

Table 1- VOLATILE SUBSTANCES[1]	GC	GCMS
Acrolein	2.0	5
Acrylonitrile	2.0	2
Benzene	0.5	2
Bromoform	0.5	2
Carbon Tetrachloride	0.5	2
Chlorobenzene	0.5	2
Chlorodibromomethane	0.5	2
Chloroethane	0.5	2
Chloroform	0.5	2
Dichlorobromomethane	0.5	2
1,1 Dichloroethane	0.5	1
1,2 Dichloroethane	0.5	2
1,1 Dichloroethylene	0.5	2
1,2 Dichloropropane	0.5	1
1,3 Dichloropropylene (volatile)	0.5	2
Ethylbenzene	0.5	2
Methyl Bromide (*Bromomethane*)	1.0	2
Methyl Chloride (*Chloromethane*)	0.5	2
Methylene Chloride (*Dichloromethane*)	0.5	2
1,1,2,2 Tetrachloroethane	0.5	1
Tetrachloroethylene	0.5	2
Toluene	0.5	2
trans-1,2 Dichloroethylene	0.5	1
1,1,1 Trichloroethane	0.5	2
1,1,2 Trichloroethane	0.5	2
Trichloroethylene	0.5	2
Vinyl Chloride	0.5	2
1,2 Dichlorobenzene (volatile)	0.5	2
1,3 Dichlorobenzene (volatile)	0.5	2
1,4 Dichlorobenzene (volatile)	0.5	2

Selection and Use of Appropriate ML Value:

ML Selection: When there is more than one ML value for a given substance, the discharger may select any one of those ML values, and their associated analytical methods, listed in Attachment "A" that are below the calculated effluent limitation for compliance determination. If no ML value is below the effluent limitation, then the discharger shall select the lowest ML value, and its associated analytical method, listed in this Attachment "A".

ML Usage: The ML value in Attachment "A" represents the lowest quantifiable concentration in a sample based on the proper application of all method-based analytical procedures and the absence of any matrix interferences. Assuming that all method-specific analytical steps are followed, the ML value will also represent, after the appropriate application of method-specific factors, the lowest standard in the calibration curve for that specific analytical technique. Common analytical practices sometimes require different treatment of the sample relative to calibration standards.

Note: chemical names in parenthesis and italicized is another name for the constituent.

[1] *The normal method-specific factor for these substances is 1, therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.*

MINIMUM LEVELS IN PPB (µg/l)

Table 2 – Semi-Volatile Substances[2]	GC	GCMS	LC
2-Chloroethyl vinyl ether	1	1	
2 Chlorophenol	2	5	
2,4 Dichlorophenol	1	5	
2,4 Dimethylphenol	1	2	
4,6 Dinitro-2-methylphenol	10	5	
2,4 Dinitrophenol	5	5	
2- Nitrophenol		10	
4- Nitrophenol	5	10	
4 Chloro-3-methylphenol	5	1	
2,4,6 Trichlorophenol	10	10	
Acenaphthene	1	1	0.5
Acenaphthylene		10	0.2
Anthracene		10	2
Benzidine		5	
Benzo (a) Anthracene (*1,2 Benzanthracene*)	10	5	
Benzo(a) pyrene (*3,4 Benzopyrene*)		10	2
Benzo (b) Flouranthene (*3,4 Benzofluoranthene*)		10	10
Benzo(g,h,i)perylene		5	0.1
Benzo(k)fluoranthene		10	2
bis 2-(1-Chloroethoxyl) methane		5	
bis(2-chloroethyl) ether	10	1	
bis(2-Chloroisopropyl) ether	10	2	
bis(2-Ethylhexyl) phthalate	10	5	
4-Bromophenyl phenyl ether	10	5	
Butyl benzyl phthalate	10	10	
2-Chloronaphthalene		10	
4-Chlorophenyl phenyl ether		5	
Chrysene		10	5
Dibenzo(a,h)-anthracene		10	0.1
1,2 Dichlorobenzene (semivolatile)	2	2	
1,3 Dichlorobenzene (semivolatile)	2	1	
1,4 Dichlorobenzene (semivolatile)	2	1	
3,3' Dichlorobenzidine		5	
Diethyl phthalate	10	2	
Dimethyl phthalate	10	2	
di-n-Butyl phthalate		10	
2,4 Dinitrotoluene	10	5	
2,6 Dinitrotoluene		5	
di-n-Octyl phthalate		10	
1,2 Diphenylhydrazine		1	
Fluoranthene	10	1	0.05
Fluorene		10	0.1
Hexachloro-cyclopentadiene	5	5	
1,2,4 Trichlorobenzene	1	5	

MINIMUM LEVELS IN PPB (µg/l)

Table 2 - SEMI-VOLATILE SUBSTANCES[2]	GC	GCMS	LC	COLOR
Pentachlorophenol	1	5		
Phenol [3]	1	1		50
Hexachlorobenzene	5	1		
Hexachlorobutadiene	5	1		
Hexachloroethane	5	1		
Indeno(1,2,3,cd)-pyrene		10	0.05	
Isophorone	10	1		
Naphthalene	10	1	0.2	
Nitrobenzene	10	1		
N-Nitroso-dimethyl amine	10	5		
N-Nitroso -di n-propyl amine	10	5		
N-Nitroso diphenyl amine	10	1		
Phenanthrene		5	0.05	
Pyrene		10	0.05	

Table 3– INORGANICS[4]	FAA	GFAA	ICP	ICPMS	SPGFAA	HYDRIDE	CVAA	COLOR	DCP
Antimony	10	5	50	0.5	5	0.5			1000
Arsenic		2	10	2	2	1		20	1000
Beryllium	20	0.5	2	0.5	1				1000
Cadmium	10	0.5	10	0.25	0.5				1000
Chromium (total)	50	2	10	0.5	1				1000
Chromium VI	5							10	
Copper	25	5	10	0.5	2				1000
Lead	20	5	5	0.5	2				10000
Mercury				0.5			0.2		
Nickel	50	5	20	1	5				1000
Selenium		5	10	2	5	1			1000
Silver	10	1	10	0.25	2				1000
Thallium	10	2	10	1	5				1000
Zinc	20		20	1	10				1000
Cyanide								5	

[2] *With the exception of phenol by colorimetric technique, the normal method-specific factor for these substances is 1000, therefore, the lowest standards concentration in the calibration curve is equal to the above ML value for each substance multiplied by 1000.*

[3] *Phenol by colorimetric technique has a factor of 1*

[4] *The normal method-specific factor for these substances is 1, therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.*

MINIMUM LEVELS IN PPB (µg/l)

Table 4- PESTICIDES – PCBs[5]	GC
Aldrin	0.005
alpha–BHC (*a-Hexachloro-cyclohexane*)	0.01
beta–BHC (*b-Hexachloro-cyclohexane*)	0.005
Gamma–BHC (*Lindane; g-Hexachloro-cyclohexane*)	0.02
Delta-BHC (*d-Hexachloro-cyclohexane*)	0.005
Chlordane	0.1
4,4'-DDT	0.01
4,4'-DDE	0.05
4,4'-DDD	0.05
Dieldrin	0.01
Alpha-Endosulfan	0.02
Beta-Endosulfan	0.01
Endosulfan Sulfate	0.05
Endrin	0.01
Endrin Aldehyde	0.01
Heptachlor	0.01
Heptachlor Epoxide	0.01
PCB 1016	0.5
PCB 1221	0.5
PCB 1232	0.5
PCB 1242	0.5
PCB 1248	0.5
PCB 1254	0.5
PCB 1260	0.5
Toxaphene	0.5

Techniques:
GC - Gas Chromatography
GCMS - Gas Chromatography/Mass Spectrometry
HRGCMS - High Resolution Gas Chromatography/Mass Spectrometry (i.e., EPA 1613, 1624, or 1625)
LC - High Pressure Liquid Chromatography
FAA - Flame Atomic Absorption
GFAA - Graphite Furnace Atomic Absorption
HYDRIDE - Gaseous Hydride Atomic Absorption
CVAA - Cold Vapor Atomic Absorption
ICP - Inductively Coupled Plasma
ICPMS - Inductively Coupled Plasma/Mass Spectrometry
SPGFAA - Stabilized Platform Graphite Furnace Atomic Absorption (i.e., EPA 200.9)
DCP - Direct Current Plasma
COLOR - Colorimetric

[5] *The normal method-specific factor for these substances is 100, therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance multiplied by 100.*

EPA PRIORITY POLLUTANT LIST

Metals		Acid Extractibles		Base/Neutral Extractibles (continuation)	
1.	Antimony	45.	2-Chlorophenol	91.	Hexachloroethane
2.	Arsenic	46.	2,4-Dichlorophenol	92.	Indeno (1,2,3-cd) Pyrene
3.	Beryllium	47.	2,4-Dimethylphenol	93.	Isophorone
4.	Cadmium	48.	2-Methyl-4,6-Dinitrophenol	94.	Naphthalene
5a.	Chromium (III)	49.	2,4-Dinitrophenol	95.	Nitrobenzene
5b.	Chromium (VI)	50.	2-Nitrophenol	96.	N-Nitrosodimethylamine
6.	Copper	51.	4-Nitrophenol	97.	N-Nitrosodi-N-Propylamine
7.	Lead	52.	3-Methyl-4-Chlorophenol	98.	N-Nitrosodiphenylamine
8.	Mercury	53.	Pentachlorophenol	99.	Phenanthrene
9.	Nickel	54.	Phenol	100.	Pyrene
10.	Selenium	55.	2, 4, 6 – Trichlorophenol	101.	1,2,4-Trichlorobenzene
11.	Silver	**Base/Neutral Extractibles**		**Pesticides**	
12.	Thallium	56.	Acenaphthene	102.	Aldrin
13.	Zinc	57.	Acenaphthylene	103.	Alpha BHC
Miscellaneous		58.	Anthracene	104.	Beta BHC
14.	Cyanide	59.	Benzidine	105.	Delta BHC
15.	Asbestos (not required unless requested)	60.	Benzo (a) Anthracene	106.	Gamma BHC
16.	2,3,7,8-Tetrachlorodibenzo-P-Dioxin (TCDD)	61.	Benzo (a) Pyrene	107.	Chlordane
Volatile Organics		62.	Benzo (b) Fluoranthene	108.	4, 4' - DDT
17.	Acrolein	63.	Benzo (g,h,i) Perylene	109.	4, 4' - DDE
18.	Acrylonitrile	64.	Benzo (k) Fluoranthene	110.	4, 4' - DDD
19.	Benzene	65.	Bis (2-Chloroethoxy) Methane	111.	Dieldrin
20.	Bromoform	66.	Bis (2-Chloroethyl) Ether	112.	Alpha Endosulfan
21.	Carbon Tetrachloride	67.	Bis (2-Chloroisopropyl) Ether	113.	Beta Endosulfan
22.	Chlorobenzene	68.	Bis (2-Ethylhexyl) Phthalate	114.	Endosulfan Sulfate
23.	Chlorodibromomethane	69.	4-Bromophenyl Phenyl Ether	115.	Endrin
24.	Chloroethane	70.	Butylbenzyl Phthalate	116.	Endrin Aldehyde
25.	2-Chloroethyl Vinyl Ether	71.	2-Chloronaphthalene	117.	Heptachlor
26.	Chloroform	72.	4-Chlorophenyl Phenyl Ether	118.	Heptachlor Epoxide
27.	Dichlorobromomethane	73.	Chrysene	119.	PCB 1016
28.	1,1-Dichloroethane	74.	Dibenzo (a,h) Anthracene	120.	PCB 1221
29.	1,2-Dichloroethane	75.	1,2-Dichlorobenzene	121.	PCB 1232
30.	1,1-Dichloroethylene	76.	1,3-Dichlorobenzene	122.	PCB 1242
31.	1,2-Dichloropropane	77.	1,4-Dichlorobenzene	123.	PCB 1248
32.	1,3-Dichloropropylene	78.	3,3'-Dichlorobenzidine	124.	PCB 1254
33.	Ethylbenzene	79.	Diethyl Phthalate	125.	PCB 1260
34.	Methyl Bromide	80.	Dimethyl Phthalate	126.	Toxaphene
35.	Methyl Chloride	81.	Di-n-Butyl Phthalate		
36.	Methylene Chloride	82.	2,4-Dinitrotoluene		
37.	1,1,2,2-Tetrachloroethane	83.	2-6-Dinitrotoluene		
38.	Tetrachloroethylene	84.	Di-n-Octyl Phthalate		
39.	Toluene	85.	1,2-Dipenylhydrazine		
40.	1,2-Trans-Dichloroethylene	86.	Fluoranthene		
41.	1,1,1-Trichloroethane	87.	Fluorene		
42.	1,1,2-Trichloroethane	88.	Hexachlorobenzene		
43.	Trichloroethylene	89.	Hexachlorobutadiene		
44.	Vinyl Chloride	90.	Hexachlorocyclopentadiene		

Revised: 7/7/2000